Review of the 1980-1981 British Columbia Herring Fishery and Spawn Abundance

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ABSTRACT

Chalmers, D. D., P. E. Sprout, A. Barber, and S. Benoit. 1982. Review of the 1980-81 British Columbia herring fishery and spawn abundance. Can. Ind. Rep. Fish. Aquat. Sci. 134 : v + 87 p.

During the 1980-81 season herring were fished in British Columbia waters from November 17 to December 10, 1980 for food and bait and from March 4 to April 3, 1981 for roe. The total food and bait catch was 8,907 t (8,097 mt). The 1981 roe herring fishery yielded 32,403 t (29,457 mt), with a landed value of $34.68 million. The spawn deposition of 14.7 million standard square yards is slightly below the 16.2 million average for the period 1973-80.

Key words: Pacific herring, fishery, catch, spawn.

RESUME

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RÉSUMÉ

Au cours de la saison de pêche de 1980-1981 en Colombie-Britannique, on a pêché le hareng du 17 novembre au 10 décembre 1980 pour s'en servir comme nourriture et appât, et du 4 mars au 3 avril 1981, pour en obtenir la rogue. Le total des prises de la première catégorie s'élevait à 8 907 t (8 097 tm). En 1981, le total des prises de hareng rogué s'élevait à 32 403 t (29 457 tm), dont la valeur au débarquement totalisait $34.68 millions. La superficie des dépôts des produits de la fraie couvrait 14,7 millions de verges carrées, ce qui est légèrement inférieur à la moyenne de 16,2 millions pour la période de 1973 à 1980.

Mots-clés: hareng du Pacifique, pêche, prise, produits de la fraie

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INTRODUCTION

During October and November, Pacific herring (*Clupea harengus pallasi*) return from offshore feeding areas in preparation for spawning. While inshore they form dense schools and hold over winter in coastal bays and inlets. During this time and until they return offshore after spawning in March and April they are subjected to two major fisheries in the coastal waters of British Columbia. The food and bait fishery takes place in November and December when fat content is high. These fish are mainly frozen whole for export to Japan with minor quantities being salted, filleted, and pickled for the European and domestic markets. Commercial bait requirements are also taken at this time.

The roe herring fishery occurs in March and April and is by far the largest, most intensive of the fisheries. Fishing takes place on or near the spawning grounds as soon as the ovary weight reaches a minimum of 20% of the total body weight.

Assessment of the status of the herring stocks are published annually, (e.g. Hourston 1980). These reports provide the biological basis for the management of the fisheries and detail the estimated return of adult and recruiting herring as well as available catch for individually defined management units (Hourston and Hamer 1979). Fishery managers use this information as well as social, economic, and management considerations in order to develop catch limits and guidelines for the various fisheries. The catch limits are then reviewed by senior management and representatives of various sectors of the fishing industry before being finalized and released to industry in general.

Prior to commencement of any fishery, echo sounding biomass estimates and test fishing are carried out by fisheries patrol vessels and commercial charter vessels. Catch limits may be adjusted on the basis of this pre-fishery information.

This report outlines the 1981 pre-fishery catch expectations, fishing locations, and hailed catch estimates and opening and closing dates for the 1981 roe herring fisheries.

The 1980 food and bait fishery, the 1981 spawn-on-kelp fishery, and the 1981 herring spawn depositions are also summarized.

METHODS

The information for the fishery portion of this report is obtained from Fishery Officers daily radio telephone reports to Field Operations Headquarters in Vancouver. These reports contain pre-fishery test data (tonnage, length and roe maturity of fish) gear counts, opening and closure times, hailed catch figures, and weather conditions.

Spawn data was obtained from annual spawn reports compiled by field staff. These reports document timing and location of individual spawnings as well as length and width of spawn depositions, average layers of eggs on each type of substrate utilized and percentage of each vegetative cover.

Field staff measure spawn patches at low tide by pacing it out and plotting it on large scale charts or shoreline vegetation maps made from aerial photographs (e.g. Haegele and Hamey 1976). In order to determine the extent of sub-tidal depositions, a raking apparatus is dragged along the bottom to catch pieces of vegetation along with whatever eggs may be attached. This method has been unreliable in areas where the vegetation is sparce or spotty; therefore, whenever possible, spawns are surveyed by divers.

For this report spawn data are converted to a standard measurement (Standard Square Yards at Medium Intensity - S.Y.M.) so that spawnings can be compared from area to area and year to year. Standard square yards are calculated by multiplying the length of deposition by the width times a weighting factor, (Table 1) times the percentage of the spawn area containing vegetation. An example of this would be: a deposition of 600 yd x 15 yd at an average of medium-heavy with 60% vegetation covers is 600 x 15 x 1.4 x .6 = 7,560 S.Y.M.

These numbers are converted to a base unit of 1,000 yd^2, thus 7,560 becomes 7.56 K S.Y.M.

For convenience, fishing locations, hailed catches, and spawning yardages are reported by Statistical Area, the boundaries of which are shown in Fig. 1 for northern British Columbia and Fig. 2 for southern British Columbia.

Table 1. Herring spawn intensity categories and weighting factors used to calculate yd^2 at a standard intensity of medium.

	No. eggs/lineal in. of eelgrass or japweed	No. eggs/$in.^2$ of kelp, rockweed or sea lettuce	No. eggs/yd^2	Weighting factor
Very light	1-25	1-50	41,914	.05
Very light-light			152,683	.20
Light	25-100	50-200	352,242	.40
Light-medium			556,187	.65
Medium	100-250	200-500	843,259	.00
Medium-heavy			1,184,776	1.40
Heavy	250-500	500-1000	1,579,407	1.90
Heavy-very heavy			2,026,052	2.40
Very heavy	500 up	1000 up	2,523,780	3.00

1980 FOOD AND BAIT FISHERY

On October 2, 1980 guidelines for the 1980 Food and Bait Fishery were issued to industry. These guidelines provided information on export, entry, and licencing requirements as well as regulations and proposed fishing patterns. The same criterion used during the 1979 food and bait fishery including proper chilling systems in fish holds, maximum load limits of 25 t per delivery, and processing to be initiated within 24 hr of capture were in effect.

The fishery was to take place between November 12 and December 12 with individual openings declared as stocks warranted. Anticipated catch quotas for the sub-districts were as follows:

Queen Charlotte Islands	(Areas 1, 2E, 2W)	500 t
North coast	(Area 3, 4, 5)	2000 t
Central coast	(Areas 6,7,8,9,10)	20% of existing stocks to a maximum of 500 t
Middle east coast	(Areas 13,14,15,16)	1000 t
Lower east coast sub-district	(Areas 17 and 18)	6000 t

These quotas were set as maximums in each area and industry was advised that they may or may not be reached dependent on stocks in the individual areas. Industry was also notified that all bait requirements were to be taken out of this fishery and that no further openings after December 12 would occur.

LOWER EAST COAST SUB-DISTRICT (AREAS 17 AND 18)

Herring stocks in the lower east coast sub-district started building just prior to November 11 when 20,000-30,000 t were estimated in Swanson Channel. Most of these fish were concentrated between Portlock Point and Isabella Point with some small scattered schools in lower Trincomali Channel. Test sets indicated a high incidence of juvenile chum salmon so no fishery was anticipated for this area. By November 21 fish had moved into Stuart Channel where soundings indicated in excess of 30,000 t. Test sets indicated that more than 85% of the fish exceeded 20 cm in length.

On 1400 hr, Tuesday, November 25 the waters of Stuart Channel, Pylades Channel and Trincomali Channel bounded by a straight line running from Pilkey Point on the northern end of Thetis Island to Shingle Spit on Valdes Island then following the shoreline northwest to Dibuxante Point then a straight line to the northwest point of De Courcy Island then to Flewett Point on Vancouver Island and running east along the shoreline to Yellow Point then across to Fraser Point on Thetis Island and then to Pilkey Point were opened for fishing.

Approximately 100 seine and six trawl vessels were in the area with the main concentration of gear found along the De Courcy Island shore down to Danger Reef.

Large catches by seine vessels resulted in the fishery closing 27 min after opening when 3,855 t had been caught. Due to the shortness of the opening and the congestion in the area trawl vessels were unable to set gear.

A second opening took place at 1440 hr on December 2. The boundaries for this opening were initially between Spotlight Cove to Chivers Point to Panther Point to Retreat Cove and back to Spotlight Cove. Fishing was very slow with the majority of sets catching a few tons or no fish. The boundary area was extended and catches increased. The new boundary ran from Spotlight Cove to the north tip of Hall Island to the south tip of Norway Island to the north tip of Jackscrew Island along the shoreline of Wallace Island to Panther Point then to the south tip of Retreat Cove then along the shoreline of Galiano Island to the point of commencement. The area closed for the balance of the season at 1540 hr. Hailed catches for this opening were 2,100 t bringing the total catch for the season to 5,955 t.

MIDDLE EAST COAST SUB-DISTRICT (AREAS 13, 14, 15, 16)

Although a catch limit of 1,000 t was proposed for this area, only 100 t was taken. Deepwater Bay in Area 13 opened coincidentally with the lower east coast in hopes of reducing the number of vessels fishing in that area; unfortunately, due to the load constraints and distance to the processing plants, only three seines and one trawl participated.

UPPER CENTRAL COAST SUB-DISTRICT (AREA 6)

This sub-district opened on December 2 and 22 seines hailed 200 t before the area was closed on December 3. Following reassessment of stocks, the area was reopened on December 8 and five seines and one trawler hailed a further 125 t. Fishing, which took place mainly on the northern end of Aristazabal Island, was hampered by stormy weather and very scattered stocks. The area closed on December 10.

NORTHERN SUB-DISTRICT (AREAS 3, 4 and 5)

This sub-district opened on November 18 and closed on December 1. Landings totaled 1,991 t with trawlers accounting for 57% and seiners 43% of the total catch. The fishery was largely concentrated along the most westerly 50-fm edge off Freeman Passage. A total of 24 seines and 11 trawlers participated in this fishery.

QUEEN CHARLOTTE ISLANDS SUB-DISTRICT (AREA 1)

This sub-district which opened on November 17, accounted for a hailed catch of 536 t. Fishing was confined to the area between Shag Rock and Langara Island and up to 25 seines participated. The area closed on November 24.

1981 ROE HERRING FISHERY

In the 1981 roe herring season an area licensing program was introduced, on a trial basis, in which the final plan separated the British Columbia coast into three fishing areas: Area A, north of Cape Caution; Area B, Strait of Georgia; and Area C, west coast of Vancouver Island. Each roe herring license holder selected to fish in only one of the three fishing areas. This program was adopted in response to the Department's and Industry's concern over declining stocks and the increased difficulty in managing the herring roe fishery due to the tremendous fishing capacity of the fleet.

Following the selection of fishing areas, gear was distributed as follows:

Fishing area	No. of vessels	
	Seines	Gillnets
Area A north of Cape Caution	98	387
Area B Strait of Georgia	37	501
Area C west coast of Vancouver Island	102	400
Total:	237	1,288

An attempt was made to achieve a 55/45% seine/gillnet catch split for both north and south of Cape Caution. The projected catches were:

Fishing area	Expected catch (t)		
	SN	GN	Total
Area A north of Cape Caution	6,775	2,225	9,000
Area B Strait of Georgia	2,000	8,000	10,000
Area C west coast Vancouver Island	7,725	3,275	11,000
Total:	16,500	13,500	30,000
% of catch:	55%	45%	

This compares to the final hailed catches of:

Fishery area	Hailed catch (t) SN	GN	Total
Area A	6,813	4,678	11,491
Area B	2,883	7,024	9,907
Area C	6,400	4,289	10,689
Total:	16,096	15,991	32,087
% of catch:	50.1%	49.9%	

Roe herring catches by statistical area (sub-area) and gear type for the years 1978, 1979, 1980, and 1981 are shown in Table 2 (North and Central coast), Table 3 (Strait of Georgia), and Table 4 (west coast of Vancouver Island).

The landed value of the 1981 roe herring catch was estimated to be $34.68 million, based on an average gillnet price of $1,200/t and seine price of $900/t. Catches and landed values were up from the 19,330 t and $22.6 million landed value in 1980[1] but are down from the 42,807 t and $120.86 million landed value in 1979 and the 68,872 t and $56 million landed value in 1978.

The following is an area by area description of the fisheries. Included are openings, closures, boundaries, gear counts, roe recovery, and some problems which were experienced during the fishery.

QUEEN CHARLOTTE ISLAND HERRING SUB-DISTRICTS (AREAS 1, 2E, 2W)

Naden Harbour (Area 1)

Naden Harbour was not considered for an opening in 1981 due to low stock abundance as indicated by declining spawn levels.

Skincuttle Inlet (Area 2E) (Table 2; Fig. 3A)

Stock assessment began on March 9 and 7,500 t were estimated in the area. Roe testing indicated a maturity of 5.75%. Stock size remained unchanged until March 16 when soundings indicated a buildup to 8,000-10,000 t and testing showed a maturity of 10.75%.

The area opened to seines at 1650 hr March 17 and closed at 1745 hr the same day. Sixty-five seines participated in the fishery and 45 landed fish for a total hailed catch of 3,858 t.

The gillnet fishery began at 1800 hr on March 18 and continued until 1000 hr March 20. One hundred and twenty punts caught 1,553 t with an average roe maturity of 13.5%.

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[1] UFAWU strike.

That portion of Skincuttle Inlet bounded by Pelican Point to a light on East Copper Island to Ikeda Point and then from Smithe to Kankidas points was open to seines, while gillnets fished the area bounded on the north by fishing boundaries established at the southern end of Dolomite Narrows and by a line from Smithe to Kankidas points (Fig. 1). At 1200 hr March 19, the existing Smithe Point-Kankidas Point boundary was moved in order to exploit Swan Bay stocks. The boundary was established from Kankidas Point to a half mile west of Kingfisher Cove. Harriet Harbour remained closed to all gear as it was designated a spawning ground.

Atli Inlet (Area 2E) (Table 2; Fig. 3B)

On March 22 soundings indicated 2,000 t of herring in Atli Inlet and fishing showed a maturity of 11.5%. This estimate was increased to 2,500 t on March 23. The area opened to seines at 1745 hr on March 24 and closed at 1905 hr the same day. A total of 755 t of herring were caught by 28 seines.

Gillnets began fishing at 1900 hr March 24 with 27 punts operating. Fishing was extremely slow and after 24 hr only 1 t was landed. By March 26, 32 punts were fishing and the accumulated catch was 30 t. The area closed at 1400 hr on March 30 with a total of 179 t caught at an average roe maturity of 10.5%.

Fishing by both gear types was restricted on the east by a line from Powrivco Point true north. Takelley Cove and Beljay Cove were closed to fishing by seine.

Inskip (Area 2W) (Table 2; Fig. 3C)

On March 5, small amounts of herring were sounded off Hastings Point. No further assessments were conducted until March 17 when 450-500 t were located off Mitchell Inlet and testing indicated a roe maturity of 10%. By March 19 stocks had increased to 1,500-1,900 t. The area was opened to seine fishing at 1527 hr on March 21 and closed at 1936 hr the same day. Four sets were made and 420 t, at an average of 10% maturity were landed.

Rennell Sound (Area 2W) (Table 2; Fig. 3D)

On March 19 approximately 400 t were estimated in Shields Bay. A test set off Richardson Head on March 23 indicated 9% maturity. On March 25 soundings indicated 1,800-2,000 t and testing showed a roe maturity of 11.5%. A seine fishery took place between 1500 hr and 1848 hr on March 25; a total of 580 t were caught by six seines with an average roe maturity of 10.5%.

NORTH COAST SUB-DISTRICT (Areas 3, 4, 5)

Kitkatla (Area 5) (Table 2; Fig. 3E)

Soundings conducted between March 11 and March 22 indicated 300-400 t in Kitkatla Inlet. On March 23 additional stocks moved into the

area and 1,000-1,500 t were sounded. A small spawning was taking place in Dries Inlet and Kitkatla Creek at this time. Stocks continued building; by March 24, 4,000-5,000 t were estimated in the area and on March 26, 2,000 t were sounded on the west side of Gurd Island and a further 4,000-5,000 t were estimated on the northeast side of the Island.

The area opened to seines from 1420 hr until 1445 hr on March 27 and 65 sets were made for a total catch of 1,200 t. The gillnet fishery commenced at 0900 hr March 30 and closed at 1400 hr April 3. A total of 200 gillnets caught an estimated 410 t. Roe recoveries from this fishery were up to 19% with the majority of the tests being between 15-18%.

Fishing was restricted to the northeast side of Gurd Island and the southern end of Kitkatla Inlet excluding Dries Inlet.

CENTRAL COAST HERRING SUB-DISTRICTS (AREAS 6, 7, 8, 9, 10, 11)

Weeteeam Bay (Area 6) (Table 2; Fig. 3F)

Assessment of stocks in this area was difficult due to fish moving into shallow water and breaking up into small schools. Sounding began on March 9 and 800-1,200 t were estimated in the area; by March 17 stocks increased to 1,500-2,000 t. A gillnet fishery commenced at 1400 hr that day. Initially there were 170 gillnets operating and this increased to 225 by the closure at 1400 hr March 18. Hailed catch was 1,217 t.

Fishing was restricted to south of a line between the head of Weeteeam Bay and outside and southeast of the entrance to Noble and Harris lagoons and outside and east of a line from Breakenridge Point north to the most prominent point approximately 0.3 mi from Breakenridge Point.

Kitasu Bay (Area 6) (Table 2; Fig. 3G)

On March 8, 500 t of herring were located along the southwest shore of Kitasu Bay; stocks built up rapidly and on March 13 tonnage was estimated at 12,000. On March 15, 15,000-20,000 t were sounded in the area; however, by March 19, stocks were declining and 6,000-8,000 t were estimated. Testing throughout the buildup of stocks showed a mixture of juvenile, mature and spawned out herring and roe maturity never exceeded 6%. The area opened to gillnets at 1400 hr on March 18 and closed at 1400 hr March 20. Fishing was very slow with the 200 punts taking only 220 t.

In order to avoid losing gear in exposed waters in the westerly swell at the time of the opening, the shore from Wilby Point to Larkin Point remained closed. The following day, with improved weather conditions, this area was opened and boundaries were established from Wingate to Tildesley points, from Larkin Point true west and, from Jamieson Point to the westerly shore of Kitasu Bay near the mouth of Parsons Anchorage.

Powell Anchorage (Area 7) (Table 2; Fig. 3H)

Soundings on March 9 indicated a total of 9,000-10,000 t in the area. Two thousand tons were located off Cape Mark and testing showed a roe maturity of 9%; 3,000-4,000 t were in Powell Anchorage and had a roe maturity of 5.5%. There was no further buildup of stocks in the area.

Powell Anchorage and Reid Passage opened to gillnets at 1400 hr March 14 and closed at 1400 hr March 16. An estimated 225 gillnets caught 792 t. Prior to the opening roe tests averaged 11.5% maturity.

The boundaries were from Sun Point to the north tip of Watch Island to a boundary sign on Cecilia Island then along the shore of Cecilia Island to Lillie Point then east to Don Peninsula then along the west and south shores to a boundary sign east of Knarled Point then south to the opposite shore then to Sun Point.

Cape Mark (Area 7) (Table 2; Fig. 3I)

Cape Mark opened at 1400 hr March 22 and closed 0800 hr March 23. A total of 307 t were caught with 115 punts operating. The boundaries were: Fingal Point due west, Cheney Point due west and Providence Rock due north and south.

LOWER EAST COAST VANCOUVER ISLAND HERRING SUB-DISTRICT (AREAS 14, 15, 16)

Lambert Channel (Area 14) (Table 3; Fig. 3J)

Stock assessment began on February 24 and 5,000 t of herring were located in Lambert Channel. On February 26 stocks increased to 10,000 t and this included fish in lower Baynes Sound and Deep Bay. By March 2, there were 10,000-12,000 t in the area from Hornby Island to Denman Island and a further 10,000 t off Cape Lazo. Roe testing indicated a maturity of 6%. There was no further buildup of stocks and on March 4, when roe tests indicated 10% maturity the area was opened to seines. The fishery took place between 1030 hr and 1743 hr and 37 seines hailed a catch of 2,883 t.

A gillnet fishery commenced at 1800 hr the same day with 400-500 punts operating. The area closed 1700 hr on March 5 with a hailed catch of 4,500-5,000 t. On March 6, further soundings indicated 30,000 - 40,000 t had moved into the area. The gillnet fishery was reopened at 0900 hr March 6, and closed to all roe herring fishing for the balance of the season at 1200 hr March 7. Gillnets hailed a total catch of 7,024 t with roe recovery ranging between 10.5 and 13%. The boundaries for both seine and gillnet fisheries ran from Cape Lazo to Willemar Bluff to Long Beak Point to the ferry landing to Shingle Spit to Shields Point to Cape Lazo.

WEST COAST VANCOUVER ISLAND SUB-DISTRICTS (AREAS 23, 24, 25, 26, 27)

Barkley Sound (Area 23) (Table 4; Fig. 3K)

On February 25 soundings indicated 5,000-6,000 t of herring off Meares Bluff and a further 6,000 t in Mayne Bay. Testing in Mayne Bay indicated that a large proportion of the stock were small immature fish.

Stocks increased and by March 7 there was a total of 18,000 t in the area. Roe testing off Chrow Island and in Macoah Pass yielded maturities of 11.5% and 6%, respectively. By March, 10 stocks had decreased to 10,000 t.

The area between Chrow Island and Forbes Island opened to seines between 1315 hr and 1400 hr on March 11. Soundings had indicated 3,000-4,000 t inside the boundaries with roe tests yielding an average of 11.7%. One hundred seines caught an estimated 3,400 t during the opening. There were isolated schools of small fish just inside the boundary at Forbes Island and some seines had to spill their fish.

The gillnet fishery ran from 2000 hr March 15 until 0800 hr March 16 and 55 punts took 620 t at an average maturity of 13.5%.

Clayoquot Sound (Area 24) (Table 4; Fig. 3L)

Soundings on February 26 identified 2,000-3,000 t in the area: of this total 1,800-2,000 t were in Clayoquot Sound and 800-1,000 t were in lower Sydney Inlet. Stocks did not begin building until March 1 when 4,500 t were estimated. This increased to 8,500 t by March 11 and to 17,500 by March 14. Father Charles and Maurus channels opened to gillnets on March 15 at 1200 hr and by the closure at 0600 hr on March 16, 250 punts caught 1,796 t at an average maturity of 11-13%.

Esperanza Inlet (Area 25) (Table 4; Fig. 3M)

Assessment on February 23 indicated a few small scattered schools just off Centre Island, totalling around 1,000 t. Stocks began building slowly and by March 2 abundance was assessed at 4,000 t with the major concentrations in the Port Langford, outer Nuchatlitz area. By March 7, approximately 5,000 t of fish had spawned and another 6,000 t were sounded between Ferrer Point and Port Langford. Gillnet test sets taken at Port Langford and Rosa Harbour indicated roe maturities of 15% and 12.5%, respectively. The gillnet fishery commenced at 0800 hr March 8 and was expected to close 0800 hr March 9; however, due to the initially slow fishing the opening was extended to 1200 hr March 10. A total of 1,128 t were taken with roe maturities as high as 19% in Port Langford and 15% in Rosa Harbour.

Nootka Sound (Area 25) (Table 4; Fig. 3N)

On March 1, 3,000-5,000 t of herring were found off Nootka Light. Sampling indicated a predominance of 3-yr-old fish along with juvenile anchovy and salmon.

On March 6, 5,000-7,000 t of herring moved into Zuciarte and Cook channels with roe tests indicating 12% maturity. A fishery was anticipated; however, the fish quickly disappeared and it was thought that excessive sounding by the fleet disturbed the fish. On March 8 stocks were located again and the area was opened for seines at 1055 hr.

A total of 2,400 t were caught by 27 seines by the closure 2 hr later. Nootka reopened to seines on March 10 between 1045 and 1100 hr. Hailed figures indicated a catch of 600 t bringing the final total to 3,000 t. For the first time in 4 yr the Nootka Sound fishery took place inside Nootka Light. An outside boundary between Nootka Light and Discovery Point was established to prevent fishing of anchovies and juvenile salmon.

Winter Harbour (Area 27) (Table 4; Fig. 30)

Winter Harbour opened to gillnets at 1200 hr March 6. At the commencement of the fishery 45 punts were operating and by March 8 this had increased to a high of 75.

Fishing was very slow and only 567 t had been taken by March 11. The area closed at 1200 hr on March 13 when 14 punts were still operating. A total of 745 t were caught with roe maturities up to 17-18%.

1981 SPAWN ON KELP FISHERY

Since 1975 a commercial herring spawn on kelp fishery has been carried out along the B.C. coast. In this fishery sexually mature herring are seined released into floating netpens in which hand-picked kelp has been suspended. Following the deposition of eggs on the kelp by the adults, the kelp is removed for packing in brine and then shipped to processing plants.

In 1981, 28 licenses were issued. Each license holder was restricted to 11 m^3 (388.5 ft^3) of product which must have been packed in approved plastic, fibreglass or aluminum totes. Total landings were 421,396 lb[2] with an average production of 15,050 lb per license holder. The 1981 landings were an increase from the 375,095 lb landed in 1980, but were down slightly from the 431,000 lb landed in 1979.

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[2]Total landings indicated preliminary figures and actual landings may vary slightly.

SPAWNINGS IN 1981

A total of 14.6 million standard square yards (S.Y.M.) of spawn was deposited coastwide in 1981 (Table 5; Table 6). Although this is lower than the 1980 deposition, (Table 5), this may be attributed to the fact that diver survey data was not incorporated into the Fishery Officer spawn estimates. Studies have shown that Fishery Officer estimates generally tend to underestimate actual spawn deposition (Haegele 1981).

QUEEN CHARLOTTE ISLANDS (Areas 1, 2E, 2W)

A total of 2,307.37 S.Y.M. of spawn was deposited in these sub-districts in 1981 and is the largest spawning since 1977. During the period 1973-80, spawn averaged 977.7 S.Y.M.

NORTH COAST (Areas 3, 4, 5)

The 1,704.9 S.Y.M. of spawn deposited in the northern sub-districts was an improvement over the previous year when 1,116.1 S.Y.M. was deposited. This increase can be attributed to larger than average spawnings in both areas 3 and 4. Area 5 showed a slight decrease from last year.

CENTRAL COAST (Areas 6, 7, 8, 9, 10)

A total of 571.2 S.Y.M. of spawn was deposited in the upper central coast sub-district (Area 6). This is an increase from the average of 217.7 S.Y.M. during the period 1973-80.

The lower central coast (Areas 7, 8, 9, 10) had a record high spawn of 1,652.7 S.Y.M. This compares with 1979 and 1980 when 524.7 S.Y.M. and 1,528.7 S.Y.M. of spawn was deposited, respectively. Area 7 accounted for the majority of spawn and was the only area in the lower central region to show an increase from previous spawnings. Areas 8, 9, and 10 spawns were all down from 1980 levels.

UPPER EAST COAST (Areas 11, 12)

Both areas 11 and 12 showed a decrease in spawning from 1980 and the 299.7 S.Y.M. of spawn was well below the 1973-1980 average of 730.3 S.Y.M.

MIDDLE EAST COAST (Areas 13, 14, 15, 16)

A total of 3,452.8 S.Y.M. of spawn was deposited in the middle east coast sub-districts. Although Area 14 shows a substantial decrease in spawn deposition from the past few years, this may in fact be an artifact of the spawn assessment method. For example, in some areas, egg estimates from diver surveys were over four times greater than estimated from fishery officer surveys. Area 15 showed a substantial increase from 1980 but is still well below the 1973-1980 average.

LOWER EAST COAST (Areas 17, 18, 19, 20)

Spawnings in Area 17 were well below previous years. A total of 520.9 S.Y.M. of spawn was deposited between Icarus Point and the head of Nanoose Bay. This compares with 1980 when 2,180.9 S.Y.M. were deposited and the 1973-80 average of 1,659.1 S.Y.M.

Spawnings in Area 18 were slightly above 1980 but still only 50% of the 1973-80 average. A very small spawning was reported in Area 19, and there were no reported spawnings for Area 20.

LOWER WEST COAST (Areas 22, 23, 24)

The spawn deposition of 1,963.32 S.Y.M. for the lower west coast is well below the 1973-80 average of 2,737.1 S.Y.M. Barkley Sound accounts for the greatest amount of decrease with only 501.5 S.Y.M. of spawn compared to the Area 23 average of 1,256.3 SYM.

Spawnings in Area 24 were only slightly below the average for the area with a total of 1,461.8 S.Y.M. being deposited.

UPPER WEST COAST (Areas 25, 26, 27)

Area 25 showed a considerable increase in spawn over the past year. During the last 5 yr major spawnings have taken place on or near Bajo Reef and in 1980, weather conditions hampered assessments. This year the majority of spawn was deposited inside Nootka Light between Friendly Cove and Marvinas Bay. This provided for a much easier and more thorough assessment.

There was no spawn assessment in Area 26; however, spawnings were reported to have taken place in Clanninick Cove, Kamils Island, and Ououkinsh Inlet.

There was a considerable decrease in spawn in Area 27 from the last year; however, the deposition for 1981 is still almost double the 1973-80 average.

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Table 2. Roe herring catches[1] by sub-area and gear type for the north and central coast from 1978 to 1981.

Sub-area	Gear type	Catch (tons)			
		1978	1979	1980*	1981
1	GN	129	111	100	
	Total	129	111	100	-
2E	SN	8,779	7,532	1,645	4,613
	GN	2,272	2,460	1,366	1,732
	Total	11,051	9,992	3,011	6,345
2W	SN	3,035	960	930	1,000
	GN	650	-	312	-
	Total	3,685	960	1,242	1,000
3&4	SN	1,600	-	-	-
	GN	1,700	-	-	-
	Total	3,300	-	-	-
5	SN	473	1,450	1,690	1,200
	GN	1,100	1,363	1,290	410
	Total	1,573	2,813	2,980	1,610
6	SN	580	-	-	-
	GN	2,042	-	661	1,437
	Total	2,622	-	661	1,437
7	SN	5,176	-	-	-
	GN	8,041	-	-	1,099
	Total	13,217	-	-	1,099
All Areas	SN	19,643	9,942	4,265	6,813
	GN	15,934	3,934	3,729	4,678
	Total	35,577	13,876	7,994	11,491

[1]Hailed figures.
-No landings.
*Strike year.

Table 3. Roe herring catches[1] by sub-area and gear type for the Strait of Georgia from 1978 to 1981.

Sub-area	Gear type	Catch (tons)			
		1978	1979	1980*	1981
12	SN	525	-	-	-
	GN	115	-	-	-
	Total	640	-	-	-
14	SN	-	-	290	2,883
	GN	1,699	5,500	3,757	7,024
	Total	1,699	5,500	4,047	9,907
17	SN	5,050	-	-	-
	GN	5,024	-	-	-
	Total	10,074	-	-	-
18	GN	1,039	-	-	-
	Total	1,039	-	-	-
All Areas	SN	5,575	-	290	2,883
	GN	7,877	5,500	3,757	7,024
	Total	13,452	5,500	4,047	9,907

[1]Hailed.
-No landings.
*Strike year.

Table 4. Roe herring catches[1] by sub-area and gear type for the west coast of Vancouver Island from 1978 to 1981.

Sub-area	Gear type	Catch (tons)			
		1978	1979	1980*	1981
23	SN	3,100	7,000	-	3,400
	GN	6,067	3,000	-	620
	Total	9,167	10,000	-	4,020
24	SN	2,180	-	2,403	-
	GN	5,100	2,500	900	1,796
	Total	7,280	2,500	3,303	1,796
25	SN	920	6,000	-	3,000
	GN	3,423	4,050	2,000	1,128
	Total	4,343	10,050	2,000	4,128
27	SN	-	450	-	-
	GN	60	431	750	745
	Total	60	881	750	745
All Areas	SN	6,200	13,450	2,403	6,400
	GN	14,650	9,981	3,650	4,289
	Total	20,850	23,431	6,053	10,689

[1]Hailed landings.
-No landings.
*Strike year.

Table 5. The amount of herring spawn (yd^2 times 1,000 at a standard intensity of medium) deposited in the coastal waters of British Columbia from 1973 to 1981 by herring sub-district and statistical area.

Area	Spawning years									8 yr Avg
	1973	1974	1975	1976	1977	1978	1979	1980	1981	1973-1980
Queen Charlotte Is.										
1	-	598.3	66.4	372.1	503.3	317.46	20.0	48.0	12.05	275.0
2E	392.7	375.7	427.9	527.4	569.4	698.5	304.0	755.6	2,073.0	506.4
2W	272.4	332.4	390.6	319.3	148.0	103.2	158.3	175.2	234.37	237.4
Total	665.1	1,306.4	884.9	1,218.8	1,220.7	1,119.16	482.3	978.8	2,319.42	977.7
Northern										
3	167.8	116.0	4.6	47.4	55.5	5.4	845.9	161.1	431.0	175.5
4	1,167.7	106.0	753.1	1,354.4	328.3	80.2	350.0	288.2	667.4	552.4
5	225.2	517.1	578.5	524.9	672.0	277.5	867.8	666.8	607.5	541.2
Total	1,560.7	739.1	1,337.2	1,926.7	1,055.8	363.1	2,063.7	1,116.1	1,704.9	1,270.3
Upper Central										
6	492.3	116.1	252.8	148.9	118.8	143.2	50.0	419.7	571.2	217.7
Total	492.3	116.1	252.8	148.9	118.8	143.2	50.0	419.7	571.2	217.7
Lower Central										
7	560.6	332.8	492.2	572.0	843.8	431.6	413.6	1,186.8	1,435.7	604.2
8	337.0	204.1	298.7	369.7	256.0	108.4	72.5	245.7	197.1	236.5
9	344.8	85.2	207.7	81.2	94.4	59.7	23.0	20.4	3.2	114.5
10	34.5	21.3	20.8	19.5	7.2	45.4	15.6	75.2	16.7	29.9
Total	1,276.9	643.4	1,019.4	1,042.4	1,201.4	645.1	524.7	1,528.7	1,652.7	985.2
Upper East Coast										
11	1.8	1.0	4.6	7.3	3.7	2.4	11.6	2.0	1.0	4.3
12	1,286.5	1,092.1	1,594.9	749.4	536.2	144.2	17.2	387.5	298.7	726.0
Total	1,288.3	1,093.1	1,599.5	756.7	539.9	146.6	28.8	389.5	299.7	730.3

Table 5. (cont'd)

Area	Spawning years									8 yr Avg
	1973	1974	1975	1976	1977	1978	1979	1980	1981	1973-1980
Middle East Coast										
13	47.7	104.5	262.3	103.2	85.6	78.6	148.8	140.2	87.66	121.4
14	56.7	368.5	1,746.4	3,621.1	4,678.9	9,292.0	15,393.4	5,752.6	2,435.1	5,113.7
15	466.9	229.6	419.8	1,049.8	1,485.7	1,058.8	4,354.9	247.4	930.03	1,164.1
16	122.3	10.2	88.6	15.4	15.5	0.2	22.8	12.4	0.07	35.9
Total	693.6	712.8	2,517.1	4,789.5	6,265.7	10,429.6	19,920.9	6,152.6	3,452.8	6,435.2
Lower East Coast										
17	1,168.3	2,895.5	1,749.4	2,397.7	1,054.7	2,123.0	614.8	2,180.9	520.96	1,773.04
18	226.5	422.6	948.0	49.8	71.1	166.2	74.5	116.8	124.03	259.4
19	-	0.4	-	-	-	-	-	-	-	0.4
20	-	-	-	-	-	-	-	-	-	-
Total	1,394.8	3,318.5	2,697.4	2,447.5	1,125.8	2,289.2	689.3	2,297.7	644.99	2,032.84
Lower West Coast										
22	-	-	-	-	-	-	-	-	-	
23	404.8	908.9	779.8	2,411.6	3,246.6	570.9	995.6	731.9	501.52	1,256.3
24	77.0	1,662.4	2,317.8	2,188.1	1,350.3	1,373.0	1,339.6	1,543.4	1,461.8	1,481.4
Total	481.8	2,571.3	3,097.6	4,599.7	4,596.9	1,943.9	2,335.2	2,275.3	1,963.32	2,737.1
Upper West Coast										
25	1,586.7	604.3	1,373.9	366.2	755.5	764.5	3,036.9	311.3	735.2	1,099.9
26	186.0	77.7	66.0	30.8	7.0	-	-	-	-	45.9
27	83.3	-	299.7	31.4	48.9	1,832.1	1,068.6	2,248.8	1,307.92	701.6
Total	1,856.0	682.0	1,739.6	428.4	811.4	2,596.6	4,105.5	2,560.1	2,043.12	1,847.5
Southern Mainland										
28	-	12.0	-	-	-	-	-	-	-	1.5
29	15.2	52.5	320.0	69.3	30.0	3.8	-	0.1	-	61.4
Total	15.2	64.5	320.0	69.3	30.0	3.8	-	0.1	-	62.9
Total Sub-District	9,724.8	11,247.5	15,464.5	17,428.1	16,966.5	20,649.0	30,200.4	17,718.6	14,652.15	16,159.58

Table 6. HERRING SPAWN SUMMARY TABLE FOR 1981 OCT 27, 1981

SPAWNING GROUND	DATE SPAWNED START	END	LENGTH YDS.	WIDTH YDS.	INTENSITY	EST. BARE AREA	STD.SQ. YDS (10"0"S)
AREA:01 ,NORTH COAST Q.C.I.							
BAIN POINT	15/03	16/03	2150	40	1	0.50	2.15
GEORGE POINT	14/03	15/03	550	15	1	0.40	0.25
GERMANIA CREEK	08/03	10/03	650	75	1	0.50	1.22
GERMANIA CREEK	03/03	04/03	500	50	1	0.40	0.75
GERMANIA CREEK	03/03	04/03	300	50	1	0.50	0.38
OBSERVATORY POINT	14/03	15/03	800	20	1	0.30	0.56
OBSERVATORY POINT	14/03	15/03	600	60	3	0.60	5.76
STANLEY CREEK ESTUARY	08/03	10/03	975	50	1	0.60	0.98
AREA TOTAL			6525				12.05
AREA:02E,EAST COAST Q.C.I.							
ALDER ISLAND	05/04	05/04	400	100	2	0.75	2.00
ALDER ISLAND	05/04	05/04	600	50	2	0.50	3.00
ALDER ISLAND	05/04	09/04	300	75	2	0.50	2.25
ALDER ISLAND	05/04	09/04	800	75	2	0.50	6.00
ALDER ISLAND	05/04	09/04	400	20	9	0.50	12.00
ALDER ISLAND	05/04	09/04	300	70	7	0.70	11.97
ALDER ISLAND	05/04	09/04	250	50	3	0.50	2.50
ALDER ISLAND	05/04	09/04	300	20	5	0.70	1.80
ALDER ISLAND	05/04	05/04	100	30	9	0.40	5.40
ALDER ISLAND	05/04	05/04	200	5	7	0.20	1.52
ALDER ISLAND	05/04	05/04	200	25	7	0.15	8.08
ALDER ISLAND	05/04	05/04	780	20	7	0.40	17.78
ALDER ISLAND	05/04	05/04	350	10	7	0.05	6.32
ALDER ISLAND	05/04	05/04	900	75	4	0.10	39.49
ALDER ISLAND	05/04	05/04	400	75	6	0.10	37.80
ALDER ISLAND	05/04	05/04	400	50	6	0.35	18.20
ATLI INLET	14/04	20/04	400	5	7	0.10	3.42
ATLI INLET	14/04	20/04	250	60	9	0.10	40.50
ATLI INLET	14/04	20/04	200	45	8	0.50	10.80
ATLI INLET	14/04	20/04	200	20	9	0.25	9.00
ATLI INLET	14/04	20/04	350	10	7	0.10	5.99
ATLI INLET	14/04	20/04	150	15	7	0.20	3.42
ATLI INLET	14/04	20/04	150	35	8	0.05	11.97

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE SPAWNED START	DATE SPAWNED END	LENGTH YDS.	WIDTH YDS.	INTENSITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:02E,EAST COAST Q.C.I. CONTINUED							
ATLI INLET	14/04	20/04	300	10	9	0.25	6.75
ATLI INLET	14/04	20/04	250	20	9	0.00	15.00
ATLI INLET	14/04	20/04	20	10	9	0.00	0.60
ATLI INLET	14/04	20/04	400	20	8	0.30	13.44
ATLI INLET	14/04	20/04	350	30	6	0.40	8.82
ATLI INLET	14/04	20/04	300	10	7	0.10	5.13
ATLI INLET	14/04	20/04	30	30	7	0.10	1.54
ATLI INLET	14/04	20/04	1170	30	7	0.15	56.69
BAG HARBOUR	20/03	20/03	500	20	3	0.15	3.40
BAG HARBOUR	20/03	20/03	1600	100	1	0.15	6.80
BAG HARBOUR	20/03	20/03	300	20	2	0.25	0.90
BAG HARBOUR	20/03	20/03	500	20	3	0.40	2.40
BARGE POINT	20/06	20/04	150	5	3	0.00	0.30
BARGE POINT	20/06	20/06	100	20	3	0.00	0.80
BEATTIE ANCHORAGE	25/06	25/06	100	6	4	0.00	0.39
BEATTIE ANCHORAGE	25/06	25/06	150	75	4	0.05	6.94
BEATTIE ANCHORAGE	25/06	25/06	300	8	3	0.00	0.96
BEATTIE ANCHORAGE	25/06	25/06	120	10	5	0.00	1.20
BEATTIE ANCHORAGE	14/04	16/04	125	7	5	0.00	0.88
BEATTIE ANCHORAGE	14/04	16/04	125	7	5	0.00	0.88
BEATTIE ANCHORAGE	14/04	16/04	375	7	5	0.15	2.24
BEATTIE ANCHORAGE	14/04	16/04	100	10	5	0.00	1.00
BEATTIE ANCHORAGE	14/04	16/04	210	6	7	0.00	2.39
BEATTIE ANCHORAGE	14/04	16/04	150	10	7	0.00	2.85
BEATTIE ANCHORAGE	14/04	16/04	175	10	3	0.50	0.35
BEATTIE ANCHORAGE	25/06	25/06	75	8	3	0.00	0.24
BEATTIE ANCHORAGE	14/04	16/04	50	25	4	0.10	0.73
BEATTIE ANCHORAGE	14/04	16/04	500	15	4	0.10	4.39
BEATTIE ANCHORAGE	14/04	16/04	225	15	4	0.15	1.86
BEATTIE ANCHORAGE	14/04	16/04	210	6	3	0.10	0.45
BEATTIE ANCHORAGE	14/04	16/04	225	15	4	0.00	2.19
BUSH ISLAND	27/04	29/04	25	5	7	0.20	0.19
BUSH ISLAND	27/04	29/04	15	10	7	0.00	0.29
CONGLOMERATE POINT	01/04	01/04	1000	40	3	0.70	4.80
CONGLOMERATE POINT	01/04	01/04	300	5	3	0.40	0.36
CONGLOMERATE POINT	01/04	01/04	600	70	9	0.80	25.20
DAWSON COVE	20/06	20/06	300	15	5	0.10	4.05
DAWSON COVE	20/06	20/06	150	10	4	0.20	0.78
DOLOMITE NARROWS	20/03	20/03	1069	17	5	0.15	15.44
DOLOMITE NARROWS	20/03	20/03	113	10	3	0.25	0.34
DOLOMITE NARROWS	21/03	21/03	1100	27	2	0.50	2.97
DOLOMITE NARROWS	21/03	21/03	200	15	2	0.75	0.15
DOLOMITE NARROWS	19/03	19/03	253	45	1	0.20	0.46
DOLOMITE NARROWS	19/03	19/03	22	20	5	0.20	0.35

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE SPAWNED START	END	LENGTH YDS.	WIDTH YDS.	INTENSITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:02E,EAST COAST Q.C.I.	CONTINUED						
DOLOMITE NARROWS	19/03	19/03	56	15	5	0.00	0.84
DOLOMITE NARROWS	19/03	19/03	56	15	3	0.00	0.34
DOLOMITE NARROWS	19/03	19/03	33	15	2	0.00	0.10
DOLOMITE NARROWS	19/03	19/03	112	15	3	0.00	0.67
DOLOMITE NARROWS	20/03	20/03	562	15	4	0.50	2.74
DUVAL ROCK	01/04	01/04	1200	15	3	0.15	6.12
DUVAL ROCK	01/04	01/04	120	30	6	0.20	4.03
FLOWERY ISLAND	06/06	06/06	15	4	9	0.20	0.14
FLOWERY ISLAND	06/06	06/06	15	2	5	0.00	0.03
FLOWERY ISLAND	06/06	06/06	100	3	4	0.00	0.20
FLOWERY ISLAND	06/06	06/06	25	15	5	0.10	0.34
FLOWERY ISLAND	06/06	06/06	80	40	8	0.15	6.53
FLOWERY ISLAND	06/06	06/06	10	8	6	0.10	0.10
FRANCIS BAY	21/03	21/03	800	40	4	0.10	18.72
FRANCIS BAY	21/03	21/03	1100	31	4	0.20	17.74
FRANCIS BAY	21/03	21/03	700	27	3	0.47	4.01
FRANCIS BAY	21/03	21/03	500	8	4	0.23	2.00
HUSTON INLET	01/03	03/03	50	50	4	0.10	1.47
HUSTON INLET	01/03	03/03	533	15	4	0.10	4.68
HUSTON INLET	01/03	03/03	200	4	2	0.20	0.13
HUSTON INLET	01/03	03/03	250	1[illegible]	3	0.05	1.43
HUSTON INLET	01/03	03/03	150	10	3	0.00	0.60
HUSTON INLET	01/03	03/03	400	7	5	0.15	2.38
HUSTON INLET	01/03	03/03	350	4	4	0.30	0.64
HUSTON INLET	01/03	03/03	80	70	2	0.20	0.38
HUSTON INLET	01/03	03/03	400	2	3	0.05	0.30
HUSTON INLET	01/03	03/03	350	3	3	0.20	0.34
HUSTON INLET	01/03	03/03	230	4	3	0.00	0.37
HUSTON INLET	01/03	03/03	300	5	2	0.10	0.27
HUSTON INLET	01/03	03/03	230	20	3	0.00	1.84
HUSTON INLET	01/03	03/03	40	25	3	0.00	0.40
HUSTON INLET	01/03	03/03	430	8	2	0.30	0.48
HUSTON INLET	01/03	03/03	430	10	2	0.30	0.60
HUSTON INLET	01/03	03/03	50	25	3	0.30	0.35
HUSTON INLET	01/03	03/03	100	8	5	0.00	0.80
HUXLEY ISLAND	17/04	18/04	150	3	3	0.20	0.14
HUXLEY ISLAND	17/04	18/04	300	10	5	0.15	2.55
HUXLEY ISLAND	17/04	18/04	250	8	3	0.30	0.56
HUXLEY ISLAND	17/04	18/04	200	30	4	0.00	3.90
JEDWAY	07/04	07/04	30	10	3	0.50	0.06
JEDWAY	21/03	21/03	140	13	7	0.00	3.46
JEDWAY	21/03	21/03	100	10	7	0.00	1.90
KIRUNA POINT	16/04	16/04	20	20	1	0.00	0.02
LOUISE ISLAND	07/04	18/04	700	20	5	0.00	14.00

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWN #, GROUND	DATE START	SPAWNED END	LENGTH YDS.	WIDTH YDS.	INTEN-SITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:02E,EAST COAST Q.C.I.		CONTINUED					
LOUISE ISLAND	07/04	18/04	140	30	2	0.25	0.63
LOUISE ISLAND	07/04	18/04	140	35	3	0.50	0.98
LOUISE ISLAND	07/04	18/04	250	40	5	0.50	5.00
LOUISE ISLAND	07/04	18/04	140	50	4	0.50	2.28
LOUISE ISLAND	07/04	18/04	250	10	3	0.50	0.50
LOUISE ISLAND	07/04	18/04	250	5	2	0.00	0.25
LOUISE ISLAND	07/04	18/04	140	35	4	0.75	0.80
LOUISE ISLAND	07/04	18/04	140	15	5	0.50	1.05
LOUISE ISLAND	07/04	18/04	175	10	4	0.00	1.14
LOUISE ISLAND	07/04	18/04	175	10	3	0.00	0.70
MAUDE ISLAND	21/06	21/06	100	25	3	0.50	2.38
MAUDE ISLAND	21/06	21/06	25	5	3	0.40	0.14
MAUDE ISLAND	21/06	21/06	50	8	3	0.70	0.12
NOMAD INLET	23/03	23/03	100	12	2	0.95	0.01
NOMAD INLET	23/03	23/03	150	40	4	0.75	0.98
NOMAD INLET	23/03	23/03	350	15	4	0.85	0.51
NOMAD INLET	23/03	23/03	100	15	4	0.50	0.49
NOMAD INLET	23/03	23/03	200	20	4	0.07	2.42
NOMAD INLET	23/03	23/03	100	20	4	0.15	1.11
NOMAD INLET	23/03	23/03	200	50	3	0.70	5.70
ONWARD POINT	16/04	16/04	100	20	1	0.50	0.05
ONWARD POINT	16/04	16/04	500	20	1	0.50	0.25
POOLE INLET	21/03	21/03	450	200	6	0.20	100.80
POOLE INLET	21/03	21/03	250	100	6	0.20	28.00
POOLE INLET	21/03	21/03	200	30	6	0.20	6.72
POOLE INLET	21/03	21/03	575	3	3	0.50	0.35
POOLE INLET	21/03	21/03	500	50	4	0.50	8.13
POOLE INLET	21/03	21/03	825	20	4	0.50	5.37
POOLE INLET	21/03	21/03	200	30	4	0.10	3.51
POOLE INLET	21/03	21/03	200	5	4	0.00	0.65
POOLE INLET	21/03	21/03	150	50	4	0.10	4.39
POOLE INLET	21/03	21/03	100	50	4	0.10	2.93
POOLE INLET	21/03	21/03	100	50	6	0.10	6.30
POOLE INLET	21/03	21/03	12	3	5	0.50	0.02
POOLE INLET	21/03	21/03	75	3	4	0.10	0.14
POOLE INLET	21/03	21/03	150	50	4	0.10	4.39
POOLE INLET	21/03	21/03	900	10	5	0.50	4.50
POOLE INLET	21/03	21/03	100	130	6	0.10	16.38
POOLE INLET	21/03	21/03	50	150	7	0.10	12.83
POOLE INLET	21/03	21/03	300	30	7	0.10	15.39
POOLE INLET	21/03	21/03	300	30	7	0.10	15.39
POOLE INLET	21/03	21/03	575	10	2	0.50	0.58
POOLE INLET	21/03	21/03	250	10	4	0.50	0.82
POOLE INLET	21/03	21/03	600	5	3	0.50	0.60

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE SPAWNED START	END	LENGTH YDS.	WIDTH YDS.	INTENSITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:02E,EAST COAST Q.C.I.		CONTINUED					
POOLE INLET	21/03	21/03	250	10	3	0.50	0.50
POOLE INLET	21/03	21/03	200	100	3	0.50	4.00
POOLE INLET	21/03	21/03	100	10	3	0.50	0.20
POOLE INLET	21/03	21/03	500	30	3	0.50	3.00
POOLE INLET	21/03	21/03	100	20	3	0.75	0.20
SECOND BEACH	18/04	19/04	75	20	3	0.20	0.48
SECOND BEACH	18/04	19/04	600	15	3	0.10	3.24
SECOND BEACH	18/04	19/04	200	10	2	0.20	0.32
SEDGWICK BAY	04/04	04/04	600	25	8	0.10	32.40
SEDGWICK BAY	04/04	04/04	300	25	8	0.60	7.20
SEDGWICK BAY	04/04	04/04	200	15	9	0.15	7.65
SEDGWICK BAY	04/04	04/04	200	15	5	0.60	1.20
SEDGWICK BAY	04/04	04/04	250	15	7	0.25	5.35
SEDGWICK BAY	04/04	04/04	325	25	4	0.10	4.75
SEDGWICK BAY	04/04	04/04	250	20	7	0.10	8.55
SEDGWICK BAY	04/04	04/04	125	15	6	0.70	0.79
SEDGWICK BAY	04/04	04/04	450	10	7	0.10	7.70
SEDGWICK BAY	04/04	04/04	300	15	7	0.30	5.99
SEDGWICK BAY	04/04	04/04	450	20	7	0.10	15.39
SEDGWICK BAY	04/04	04/04	225	15	9	0.40	6.08
SEDGWICK BAY	04/04	04/04	400	20	9	0.10	21.60
SEWELL INLET	16/04	17/04	2400	50	6	0.20	134.40
SEWELL INLET	16/04	17/04	1000	10	5	0.25	7.50
SEWELL INLET	16/04	17/04	400	25	4	0.25	4.98
SEWELL INLET	16/04	17/04	400	25	5	0.10	9.00
SEWELL INLET	16/04	17/04	800	15	4	0.50	3.90
SEWELL INLET	16/04	17/04	600	30	7	0.10	30.78
SEWELL INLET	16/04	17/04	450	40	6	0.00	25.20
SEWELL INLET	16/04	17/04	750	40	5	0.10	27.00
SEWELL INLET	16/04	18/04	350	25	6	0.05	11.64
SEWELL INLET	16/04	18/04	200	40	7	0.10	13.68
SEWELL INLET	16/04	18/04	175	50	6	0.10	11.03
SEWELL INLET	16/04	17/04	200	10	5	0.00	2.00
SEWELL INLET	16/04	17/04	375	30	5	0.20	9.00
SEWELL INLET	16/04	17/04	400	10	5	0.50	2.00
SKAAT HARBOUR	18/03	18/03	750	25	8	0.25	33.75
SKAAT HARBOUR	18/03	18/03	300	50	8	0.05	34.20
SKAAT HARBOUR	18/03	18/03	250	20	8	0.10	10.80
SKAAT HARBOUR	18/03	18/03	50	75	9	0.10	10.13
SKAAT HARBOUR	18/03	18/03	210	15	9	0.25	7.09
SKAAT HARBOUR	18/03	18/03	270	75	9	0.90	6.08
SKAAT HARBOUR	18/03	18/03	300	20	9	0.25	13.50
SKAAT HARBOUR	18/03	18/03	400	20	7	0.45	1.76
SKAAT HARBOUR	18/03	18/03	750	20	7	0.30	19.95

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE SPAWNED START	END	LENGTH YDS.	WIDTH YDS.	INTEN-SITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:02E,EAST COAST Q.C.I.	CONTINUED						
SKAAT HARBOUR	18/03	18/03	500	20	7	0.60	7.60
SKAAT HARBOUR	18/03	18/03	300	15	8	0.05	10.26
SKAAT HARBOUR	18/03	18/03	300	20	8	0.10	12.96
SKAAT HARBOUR	18/03	18/03	250	20	7	0.70	2.85
SKAAT HARBOUR	18/03	18/03	200	50	9	0.30	21.00
SKAAT HARBOUR	18/03	18/03	300	20	9	0.40	10.80
SKAAT HARBOUR	18/03	18/03	250	25	9	0.30	13.13
SKIDEGATE INLET	29/05	29/05	40	4	6	0.00	0.22
SKIDEGATE INLET	29/05	29/05	30	2	6	0.00	0.08
SKIDEGATE INLET	29/05	29/05	25	2	4	0.00	0.03
SMITHE POINT	22/03	22/03	984	40	5	0.33	26.37
SMITHE POINT	21/03	21/03	984	10	3	0.25	2.96
SMITHE POINT	22/03	22/03	1181	40	3	0.40	11.34
SWAN BAY (S OF BURNABY IS)	26/03	29/03	1100	30	6	0.50	23.10
SWAN BAY (S OF BURNABY IS)	23/03	23/03	984	60	6	0.25	62.00
SWAN BAY (S OF BURNABY IS)	24/03	24/03	450	20	5	0.20	7.20
SWAN BAY (S OF BURNABY IS)	26/03	29/03	175	30	5	0.75	1.31
SWAN BAY (S OF BURNABY IS)	26/03	29/03	100	50	3	0.20	1.60
SWAN BAY (S OF BURNABY IS)	26/03	29/03	700	50	3	0.20	11.20
SWAN BAY (S OF BURNABY IS)	26/03	29/03	100	50	3	0.50	1.00
SWAN BAY (S OF BURNABY IS)	26/03	29/03	1000	50	7	0.40	57.00
SWAN BAY (S OF BURNABY IS)	26/03	29/03	300	50	3	0.20	2.88
SWAN ISLAND	26/03	26/03	900	200	7	0.50	171.00
SWAN ISLAND	26/03	26/03	700	50	7	0.50	6.65
SWAN ISLAND	26/03	26/03	600	50	7	0.25	42.75
TORRENS IS. (BARE IS.)	24/04	28/04	15	5	7	0.20	0.11
TORRENS IS. (BARE IS.)	24/04	28/04	40	5	7	0.20	0.30
TORRENS IS. (BARE IS.)	24/04	28/04	152	18	3	0.20	0.87
TRANSIT ISLAND	27/04	29/04	100	100	4	0.10	5.85
TRANSIT ISLAND	27/04	29/04	30	10	5	0.10	0.27
TRANSIT ISLAND	27/04	29/04	30	10	7	0.10	0.51
TRANSIT ISLAND	27/04	29/04	30	5	3	0.00	0.06
TRANSIT ISLAND	27/04	29/04	75	2	4	0.00	0.10
TREE ISLAND (JEWELL IS.)	24/04	29/04	25	3	5	0.50	0.04
TREE ISLAND (JEWELL IS.)	24/04	29/04	30	10	5	0.20	0.24
TREE ISLAND (JEWELL IS.)	24/04	28/04	50	3	4	0.40	0.06
WANDERER ISLAND	18/03	18/03	250	15	4	0.50	1.22
WANDERER ISLAND	18/03	18/03	150	20	7	0.20	4.56
WANDERER ISLAND	18/03	18/03	300	15	5	0.10	4.05
WANDERER ISLAND	18/03	18/03	275	30	3	0.25	2.48
WANDERER ISLAND	18/03	18/03	200	12	3	0.20	0.77
WANDERER ISLAND	18/03	18/03	650	20	6	0.30	12.74
WANDERER ISLAND	18/03	18/03	300	20	5	0.70	1.80
WANDERER ISLAND	18/03	18/03	55	3	7	0.15	0.26

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE SPAWNED START	END	LENGTH YDS.	WIDTH YDS.	INTENSITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:02E,EAST COAST Q.C.I.	CONTINUED						
WANDERER ISLAND	18/03	18/03	300	15	7	0.10	7.70
WANDERER ISLAND	18/03	18/03	350	40	8	0.20	26.88
WANDERER ISLAND	18/03	18/03	300	25	8	0.50	9.00
WANDERER ISLAND	18/03	18/03	250	20	7	0.65	3.33
WANDERER ISLAND	18/03	18/03	200	65	9	0.10	35.10
WANDERER POINT	18/03	18/03	175	20	9	0.00	10.50
WANDERER POINT	18/03	18/03	200	20	8	0.10	8.64
WANDERER POINT	18/03	18/03	175	15	6	0.30	2.58
WANDERER POINT	18/03	18/03	150	10	6	0.40	2.16
AREA TOTAL			80486				2058.81
AREA:02W,WEST COAST Q.C.I.							
CLONARD BAY	04/04	05/04	450	20	3	0.25	2.70
CLONARD BAY	04/04	05/04	1000	15	3	0.10	5.40
CLONARD BAY	04/04	05/04	1500	10	2	0.20	2.40
CLONARD BAY	04/04	05/04	150	2	2	0.30	0.04
CLONARD BAY	04/04	05/04	200	20	3	0.35	1.04
DOWNIE ISLAND	06/04	18/04	40	3	2	0.05	0.02
DOWNIE ISLAND	06/04	18/04	65	20	1	0.30	0.05
DOWNIE ISLAND	06/04	18/04	75	10	1	0.60	0.02
DOWNIE ISLAND	06/04	18/04	300	2	1	0.30	0.02
DOWNIE ISLAND	06/04	18/04	300	15	1	0.10	0.21
DOWNIE ISLAND	06/04	18/04	180	10	1	0.20	0.07
DOWNIE ISLAND	06/04	18/04	100	10	1	0.05	0.05
FLAMINGO INLET	26/03	26/03	200	100	3	0.10	7.20
FLAMINGO INLET	26/03	26/03	700	10	2	0.20	1.12
FLAMINGO INLET	26/03	26/03	300	10	1	0.20	0.12
GOWGAIA BAY	18/03	19/03	400	5	1	0.15	0.09
GOWGAIA BAY	18/03	19/03	800	5	1	0.15	0.17
GOWGAIA BAY	18/03	19/03	300	5	3	0.15	0.51
GOWGAIA BAY	18/03	19/03	750	5	3	0.20	1.20
GOWGAIA BAY	18/03	19/03	400	10	2	0.25	0.60
GOWGAIA BAY	18/03	19/03	300	15	1	0.35	0.15
GOWGAIA BAY	18/03	19/03	300	10	1	0.20	0.12

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE SPAWNED START	END	LENGTH YDS.	WIDTH YDS.	INTENSITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:02W,WEST COAST Q.C.I. CONTINUED							
GOWGAIA BAY	18/03	19/03	200	10	3	0.20	0.64
GOWGAIA BAY	18/03	19/03	100	8	3	0.10	0.29
GOWGAIA BAY	18/03	19/03	300	20	1	0.30	0.21
INSKIP CHANNEL	01/04	10/04	300	5	1	0.10	0.07
INSKIP CHANNEL	01/04	10/04	1500	10	3	0.10	5.40
INSKIP CHANNEL	01/04	10/04	2000	15	3	0.10	10.80
LOUSCOONE INLET	03/03	03/03	200	5	4	0.10	0.59
LOUSCOONE INLET	23/03	23/03	250	40	1	0.20	0.40
LOUSCOONE INLET	26/03	26/03	200	20	4	0.05	2.47
LOUSCOONE INLET	27/03	27/03	50	50	3	0.20	0.80
LOUSCOONE INLET	03/03	03/03	700	160	2	0.60	8.96
LOUSCOONE INLET	03/03	03/03	500	120	5	0.25	45.00
LOUSCOONE INLET	03/03	03/03	1000	60	2	0.70	3.60
NEWCOMBE INLET	01/04	10/04	450	3	1	0.60	0.03
NEWCOMBE INLET	01/04	10/04	75	10	1	0.06	0.04
NEWCOMBE INLET	01/04	10/04	150	5	2	0.15	0.13
NEWCOMBE INLET	01/04	10/04	350	10	2	0.20	0.56
NEWCOMBE INLET	01/04	10/04	800	2	1	0.15	0.07
NEWCOMBE INLET	01/04	10/04	400	2	1	0.20	0.03
NEWCOMBE INLET	01/04	10/04	1100	3	1	0.10	0.15
NEWCOMBE INLET	01/04	10/04	100	20	2	0.20	0.32
NEWCOMBE INLET	01/04	10/04	100	5	2	0.25	0.08
NEWCOMBE INLET	01/04	10/04	250	10	1	0.10	0.12
NEWCOMBE INLET	01/04	10/04	200	2	2	0.20	0.06
NEWCOMBE INLET	04/04	08/04	100	30	2	0.20	0.48
PORT CHANNEL	04/04	08/04	900	20	2	0.30	2.52
PORT CHANNEL	04/04	08/04	1000	100	2	0.30	14.00
PORT CHANNEL	04/04	08/04	1000	20	3	0.30	5.60
PORT CHANNEL	04/04	08/04	250	20	1	0.20	0.20
PORT CHANNEL	04/04	08/04	300	3	1	0.10	0.05
PORT CHANNEL	04/04	08/04	300	5	1	0.25	0.06
PORT CHANNEL	04/04	08/04	1500	10	1	0.60	0.30
PORT CHANNEL	04/04	08/04	300	15	2	0.40	0.54
PORT CHANNEL	04/04	08/04	200	15	2	0.20	0.48
PORT LOUIS	15/04	19/04	1500	10	4	0.15	8.29
PORT LOUIS	15/04	19/04	350	10	3	0.40	0.84
PORT LOUIS	15/04	19/04	300	8	2	0.40	0.29
PORT LOUIS	15/04	19/04	250	10	3	0.20	0.80
PORT LOUIS	15/04	19/04	550	15	3	0.20	2.64
PORT LOUIS	15/04	19/04	1200	8	4	0.30	4.37
PORT LOUIS	15/03	19/03	500	25	3	0.30	1.75
PORT LOUIS	15/04	19/04	400	20	3	0.30	2.24
PORT LOUIS	15/04	19/04	150	15	4	0.10	1.31
PORT LOUIS	15/04	19/04	400	70	4	0.30	12.74

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE START	SPAWNED END	LENGTH YDS.	WIDTH YDS.	INTEN-SITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:02W,WEST COAST Q.C.I.		CONTINUED					
PORT LOUIS	15/04	19/04	800	10	4	0.10	4.68
PORT LOUIS	15/04	19/04	600	150	4	0.30	40.95
PORT LOUIS	15/04	19/04	1500	10	4	0.15	8.29
PORT LOUIS	15/04	19/04	225	10	4	0.20	1.17
PORT LOUIS	15/03	19/03	650	15	2	0.20	1.56
PORT LOUIS	15/03	19/03	750	15	4	0.20	5.85
PORT LOUIS	15/04	19/04	550	15	3	0.35	2.15
PORT LOUIS	15/03	19/03	250	5	3	0.10	0.45
PORT LOUIS	15/03	19/03	600	15	3	0.30	2.52
SEAL INLET	03/04	04/04	600	2	2	0.30	0.17
SEAL INLET	03/04	04/04	950	10	3	0.25	2.85
SEAL INLET	03/04	04/04	400	15	2	0.20	0.96
SEAL INLET	03/04	04/04	500	8	2	0.40	0.48
SEAL INLET	03/04	04/04	450	15	2	0.25	1.01
SEAL INLET	03/04	04/04	400	5	1	0.40	0.06
SEAL INLET	03/04	04/04	1000	5	3	0.20	0.96
SEAL INLET	03/04	04/04	560	2	3	0.15	0.38
SEAL INLET	03/04	04/04	800	20	3	0.20	5.12
SEAL INLET	03/04	04/04	550	5	3	0.25	0.83
SEAL INLET	03/04	04/04	300	10	3	0.30	0.84
SKIDEGATE CHAN. WEST	06/04	18/04	450	3	2	0.30	0.19
SKIDEGATE CHAN. WEST	06/04	18/04	700	45	3	0.20	3.36
SKIDEGATE CHAN. WEST	06/04	18/04	240	3	2	0.25	0.11
AREA TOTAL			45360				248.56
AREA:03 ,NASS							
ALICE ARM	11/03	12/03	250	250	3	0.50	12.50
ALICE ARM	09/03	10/03	300	10	3	0.10	1.08
BATH POINT	21/03	22/03	1150	55	6	0.10	79.70
BATH POINT	21/03	22/03	450	20	6	0.40	7.56
FINLAYSON ISLAND EAST	07/05	08/05	1000	15	3	0.25	4.50
FLEWIN POINT	25/03	26/03	1000	40	4	0.40	15.60
FLEWIN POINT	25/03	26/03	1300	50	7	0.20	98.80
GRASSY POINT	24/03	24/03	900	30	7	0.10	46.17

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE SPAWNED START	END	LENGTH YDS.	WIDTH YDS.	INTEN-SITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:03 ,NASS		CONTINUED					
HASTINGS ARM	10/03	10/03	900	15	2	0.00	2.70
HASTINGS ARM	10/03	10/03	500	15	3	0.00	3.00
HASTINGS ARM	10/03	10/03	1700	15	3	0.00	10.20
PORT SIMPSON	22/03	23/03	700	60	6	0.15	49.98
STUMAUN BAY	24/03	24/03	1800	20	2	0.15	6.12
STUMAUN BAY	24/03	24/03	300	20	5	0.00	6.00
STUMAUN BAY	20/03	21/03	1000	5	1	0.50	0.50
STUMAUN BAY	20/03	21/03	400	150	6	0.25	63.00
STUMAUN BAY	20/03	21/03	625	15	1	0.00	17.81
VILLAGE ISLAND	22/03	23/03	900	20	3	0.20	5.76
AREA TOTAL			15175				430.98
AREA:04 ,SKEENA							
ADA ISLAND	16/04	18/04	100	200	2	0.35	2.60
BIG BAY	26/03	28/03	200	50	2	0.18	1.64
BIG BAY	26/03	28/03	300	50	4	0.10	8.78
BIG BAY	26/03	28/03	150	30	4	0.18	2.40
BIG BAY	24/03	27/03	650	50	4	0.20	16.90
BIG BAY	24/03	27/03	350	50	2	0.20	2.80
BIG BAY	24/03	27/03	800	50	3	0.30	11.20
BURNT CLIFF ISLAND	26/03	28/03	550	15	6	0.18	9.47
BURNT CLIFF ISLAND	24/03	27/03	400	70	5	0.18	22.96
BURNT CLIFF ISLAND	26/03	28/03	500	30	5	0.18	12.30
CHISHORE PASSAGE	16/04	18/04	800	60	3	0.15	16.32
CREAK ISLANDS	11/04	15/04	850	130	3	0.35	28.73
CREAK ISLANDS	11/04	15/04	1100	120	5	0.35	85.80
HUMPBACK BAY	16/04	18/04	700	60	2	0.25	6.30
HUNTS (JAP) INLET	11/04	15/04	1000	20	8	0.20	38.40
HUNTS (JAP) INLET	11/04	15/04	1200	30	7	0.50	34.20
HUNTS (JAP) INLET	11/04	15/04	125	450	8	0.15	114.75
MASON POINT	16/04	18/04	2000	110	3	0.20	70.40
OTTER ANCHORAGE	24/03	27/03	400	50	5	0.10	18.00
PEARL HARBOUR	24/03	27/03	500	20	4	0.50	3.25
PEARL HARBOUR	24/03	27/03	350	30	3	0.20	3.36

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE START	SPAWNED END	LENGTH YDS.	WIDTH YDS.	INTEN-SITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:04 ,SKEENA		CONTINUED					
PEARL HARBOUR	24/03	27/03	200	75	6	0.18	17.22
PEARL HARBOUR	24/03	27/03	1100	50	3	0.30	15.40
SOUTH ISLAND	24/03	27/03	250	250	4	0.18	33.32
SOUTH ISLAND	26/03	28/03	300	300	5	0.40	54.00
TABLE POINT	11/04	15/04	2100	180	4	0.85	36.86
AREA TOTAL			16975				667.36
AREA:05 ,GRANVILLE-PRINCIPE							
BILLY ISLANDS	29/04	29/04	550	30	5	0.15	14.03
BILLY ISLANDS	29/04	29/04	300	40	4	0.10	7.02
BILLY ISLANDS	29/04	29/04	200	20	4	0.05	2.47
BILLY ISLANDS	29/04	29/04	200	20	4	0.10	2.34
DRIES INLET	19/03	19/03	600	30	4	0.10	10.53
FREEMAN PASSAGE	19/04	19/04	900	40	6	0.10	45.36
FREEMAN PASSAGE	19/04	19/04	500	20	6	0.05	13.30
FREEMAN PASSAGE	19/04	19/04	300	20	6	0.05	7.98
GURD ISLAND	08/04	08/04	1200	10	7	0.05	21.66
GURD ISLAND	01/04	01/04	600	20	7	0.05	21.66
GURD ISLAND	15/04	15/04	2000	40	5	0.10	72.00
GURD ISLAND	19/04	19/04	1800	30	6	0.05	71.82
KITKATLA CHANNEL	19/04	19/04	2600	35	9	0.05	259.35
KITKATLA CREEK	19/03	21/03	300	100	4	0.15	16.58
KITKATLA CREEK	19/03	21/03	1500	10	7	0.05	27.08
PORCHER PENINSULA	01/04	01/04	200	30	4	0.10	3.51
WALLY BAY	29/04	29/04	300	20	7	0.05	10.83
AREA TOTAL			14050				607.52

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE SPAWNED START	END	LENGTH YDS.	WIDTH YDS.	INTEN-SITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:06 ,BUTEDALE							
HARTLEY BAY	18/04	20/04	2200	3	3	0.30	1.85
HAWKESBURY ISLAND	10/06	10/06	100	5	3	0.35	0.13
HAWKESBURY ISLAND	10/06	10/06	20	10	7	0.30	0.27
HAWKESBURY ISLAND	10/06	10/06	15	10	8	0.20	0.29
HAWKESBURY ISLAND	10/06	10/06	100	15	6	0.15	1.79
HAWKESBURY ISLAND	10/06	10/06	100	5	7	0.30	0.67
HAWKESBURY ISLAND	10/06	10/06	50	5	3	0.25	0.08
HIGGINS PASSAGE	20/03	23/03	260	15	6	0.50	2.73
HIGGINS PASSAGE	20/03	23/03	600	25	7	0.60	11.40
HIGGINS PASSAGE	20/03	23/03	200	25	5	0.60	2.00
HIGGINS PASSAGE	20/03	23/03	200	20	5	0.50	2.00
OSMENT INLET	30/03	30/03	900	25	7	0.30	29.93
OSMENT INLET	30/03	30/03	800	15	3	0.40	2.88
OSMENT INLET	30/03	30/03	100	10	3	0.30	0.28
OSMENT INLET	30/03	30/03	1200	10	6	0.30	11.76
OSMENT INLET	31/03	31/03	500	20	7	0.40	11.40
OSMENT INLET	31/03	31/03	125	25	7	0.10	5.35
OSMENT INLET	30/03	30/03	200	15	5	0.50	1.50
OSMENT INLET	30/03	30/03	150	50	7	0.50	4.28
PARSONS ANCHORAGE	11/03	18/03	300	3	5	0.60	0.36
PARSONS ANCHORAGE	11/03	18/03	750	100	6	0.50	52.50
PARSONS ANCHORAGE	18/03	18/03	300	5	3	0.40	0.36
PARSONS ANCHORAGE	18/03	18/03	450	15	5	0.30	4.73
PARSONS ANCHORAGE	18/03	18/03	600	75	5	0.15	38.25
PARSONS ANCHORAGE	18/03	18/03	350	40	5	0.25	10.50
PARSONS ANCHORAGE	18/03	18/03	450	20	7	0.10	15.39
PARSONS ANCHORAGE	18/03	18/03	350	25	6	0.15	10.41
PARSONS ANCHORAGE	12/03	18/03	1700	10	4	0.30	7.74
PARSONS ANCHORAGE	18/03	25/03	1950	10	5	0.50	9.75
PARSONS ANCHORAGE	14/03	20/03	750	3	4	0.20	1.17
PARSONS ANCHORAGE	14/03	20/03	375	4	2	0.60	0.12
PARSONS ANCHORAGE	23/03	26/03	1050	150	3	0.50	31.50
PARSONS ANCHORAGE	16/03	20/03	275	20	6	0.20	6.16
PARSONS ANCHORAGE	18/03	18/03	300	10	5	0.20	2.40
PARSONS ANCHORAGE	18/03	18/03	75	10	5	0.25	0.56
PARSONS ANCHORAGE	11/03	18/03	400	30	6	0.10	15.12
PARSONS ANCHORAGE	20/03	26/03	1200	50	6	0.50	42.00
PRICE ISLAND	15/03	18/03	100	5	4	0.30	0.23
WEETEEAM BAY	15/03	18/03	300	10	5	0.20	2.40
WEETEEAM BAY	15/03	18/03	300	10	3	0.40	0.72
WEETEEAM BAY	15/03	18/03	550	8	5	0.30	3.08
WEETEEAM BAY	14/03	17/03	130	60	6	0.25	8.19
WEETEEAM BAY	14/03	17/03	500	5	4	0.60	0.65
WEETEEAM BAY	14/03	17/03	150	10	3	0.40	0.36

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE START	SPAWNED END	LENGTH YDS.	WIDTH YDS.	INTEN-SITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:06 ,BUTEDALE		CONTINUED					
WEETEEAM BAY	14/03	17/03	200	5	2	0.10	0.18
WEETEEAM BAY	14/03	17/03	200	5	4	0.30	0.46
WEETEEAM BAY	14/03	17/03	660	5	2	0.20	0.53
WEETEEAM BAY	16/03	19/03	300	8	4	0.20	1.25
WEETEEAM BAY	16/03	19/03	300	10	4	0.25	1.46
WEETEEAM BAY	16/03	19/03	2000	5	4	0.20	8.00
WEETEEAM BAY	13/03	16/03	260	5	6	0.20	1.46
WEETEEAM BAY	13/03	16/03	160	10	6	0.10	2.02
WEETEEAM BAY	13/03	16/03	530	20	4	0.15	5.86
WEETEEAM BAY	13/03	16/03	460	7	3	0.15	1.10
WEETEEAM BAY	13/03	16/03	260	60	6	0.05	20.75
WEETEEAM BAY	13/03	16/03	260	160	6	0.05	55.33
WEETEEAM BAY	13/03	16/03	160	40	5	0.10	5.76
WEETEEAM BAY	13/03	16/03	300	10	4	0.60	0.78
WEETEEAM BAY	13/03	16/03	660	15	4	0.25	4.83
WEETEEAM BAY	13/03	16/03	260	8	3	0.30	0.58
WEETEEAM BAY	13/03	16/03	330	150	4	0.25	24.14
WEETEEAM BAY	14/03	17/03	200	75	7	0.50	14.25
WEETEEAM BAY	14/03	17/03	500	8	4	0.30	1.82
WEETEEAM BAY	14/03	17/03	180	10	3	0.40	0.43
WEETEEAM BAY	14/03	17/03	250	40	3	0.30	2.80
WEETEEAM BAY	07/03	07/03	400	8	3	0.30	0.90
WEETEEAM BAY	07/03	07/03	700	8	4	0.50	1.82
WEETEEAM BAY	07/03	07/03	200	10	5	0.50	1.00
WEETEEAM BAY	15/03	18/03	200	3	4	0.30	0.27
WEETEEAM BAY	15/03	18/03	200	15	6	0.25	3.15
WEETEEAM BAY	15/03	18/03	200	5	5	0.40	0.60
WEETEEAM BAY	15/03	18/03	330	30	5	0.50	4.95
WILBY POINT	19/03	20/03	250	10	2	0.60	0.20
WILBY POINT	19/03	20/03	300	100	4	0.60	7.80
WILBY POINT	19/03	20/03	200	200	5	0.60	16.00
WILBY POINT	19/03	20/03	400	25	5	0.40	6.00
WILBY POINT	16/03	25/03	1700	5	2	0.75	0.43
WILBY POINT	18/03	25/03	1900	10	7	0.50	18.05
WILBY POINT	19/03	20/03	500	4	3	0.50	0.40
WILBY POINT	19/03	20/03	400	15	2	0.50	0.60
AREA TOTAL			37705				571.20

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE SPAWNED START	END	LENGTH YDS.	WIDTH YDS.	INTENSITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:07 ,BELLA BELLA							
BERRY INLET	20/03	23/03	850	12	3	0.20	3.26
BERRY INLET	20/03	23/03	100	12	9	0.15	3.06
BERRY INLET	18/03	21/03	325	10	5	0.20	2.60
BERRY INLET	20/03	23/03	150	73	6	0.20	12.26
BERRY INLET	20/03	23/03	700	10	7	0.25	9.98
BERRY INLET	20/03	23/03	250	6	6	0.25	1.56
BERRY INLET	20/03	23/03	800	7	2	0.35	0.73
BERRY INLET	20/03	23/03	230	5	4	0.15	0.64
BERRY INLET	20/03	23/03	50	5	4	0.25	0.12
BERRY INLET	20/03	23/03	40	7	4	0.20	0.14
BERRY INLET	20/03	23/03	35	7	4	0.25	0.12
BERRY INLET	20/03	23/03	70	25	4	0.15	0.97
BODDY PASSAGE/NARROWS	30/03	30/03	30	10	6	0.05	0.40
BODDY PASSAGE/NARROWS	31/03	02/04	400	12	4	0.10	2.81
BODDY PASSAGE/NARROWS	25/03	26/03	80	50	5	0.20	3.20
BODDY PASSAGE/NARROWS	25/03	26/03	600	8	6	0.15	5.71
BODDY PASSAGE/NARROWS	31/03	02/04	600	6	5	0.20	2.88
BODDY PASSAGE/NARROWS	03/04	13/04	900	10	5	0.10	8.10
BODDY PASSAGE/NARROWS	10/04	13/04	1000	8	7	0.10	13.68
CAPE MARK	21/03	21/03	450	15	9	0.10	18.23
CAPE MARK	21/03	21/03	50	75	3	0.35	0.98
CAPE MARK	21/03	21/03	300	15	9	0.15	11.49
CAPE MARK	21/03	21/03	100	25	5	0.25	1.88
CAPE MARK	21/03	21/03	350	30	9	0.20	25.20
CAPE MARK	21/03	21/03	350	5	4	0.05	1.08
CAPE MARK	21/03	24/03	400	50	4	0.40	7.80
CAPE MARK	21/03	24/03	200	50	4	0.25	4.88
CAPE MARK	21/03	21/03	200	15	4	0.25	1.46
CAPE MARK	21/03	21/03	250	10	5	0.20	2.00
CAPE MARK	21/03	24/03	800	5	6	0.10	5.04
CAPE MARK	21/03	24/03	1500	5	5	0.10	6.75
CAPE MARK	21/03	24/03	200	5	5	0.10	0.90
CECILIA ISLAND	06/03	10/03	2016	15	8	0.15	61.69
CULTUS SOUND	16/03	27/03	1050	5	4	0.10	3.07
CULTUS SOUND	30/03	11/04	71	8	3	0.30	0.16
CULTUS SOUND	30/03	11/04	210	8	3	0.10	0.60
CULTUS SOUND	30/03	11/04	855	10	3	0.10	3.08
EDWARDS POINT	13/03	18/03	200	10	3	0.10	0.72
EDWARDS POINT	13/03	18/03	130	5	3	0.30	0.18
EDWARDS POINT	13/03	18/03	75	75	3	0.10	2.03
EDWARDS POINT	13/03	18/03	250	10	3	0.25	0.75
EDWARDS POINT	13/03	18/03	30	10	3	0.40	0.07
EDWARDS POINT	13/03	18/03	455	7	6	0.40	2.68
EDWARDS POINT	13/03	18/03	50	50	6	0.40	2.10

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE SPAWNED START	END	LENGTH YDS.	WIDTH YDS.	INTENSITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:07 ,BELLA BELLA		CONTINUED					
HOUGHTON ISLANDS	22/03	27/03	300	125	9	0.30	78.75
HOUGHTON ISLANDS	20/03	29/03	200	30	9	0.10	16.20
HOUGHTON ISLANDS	25/03	25/03	300	3	6	0.20	1.01
HOUGHTON ISLANDS	25/03	25/03	50	15	6	0.25	0.79
HOUGHTON ISLANDS	24/03	24/03	125	25	5	0.15	2.66
HOUGHTON ISLANDS	22/03	25/03	125	20	7	0.10	4.28
HOUGHTON ISLANDS	26/03	27/03	200	50	5	0.35	6.50
HOUGHTON ISLANDS	25/03	27/03	100	30	5	0.10	2.70
HOUGHTON ISLANDS	25/03	27/03	50	25	5	0.20	1.00
HURRICANE ISLAND	25/03	27/03	200	30	6	0.55	3.78
HURRICANE ISLAND	25/03	27/03	40	20	5	0.30	0.56
HURRICANE ISLAND	25/03	27/03	50	20	3	0.40	0.24
HURRICANE ISLAND	25/03	27/03	250	15	3	0.55	0.68
HURRICANE ISLAND	25/03	27/03	200	3	2	0.40	0.12
HURRICANE ISLAND	25/03	27/03	75	40	4	0.50	0.98
HURRICANE ISLAND	25/03	27/03	300	80	5	0.45	13.20
HURRICANE ISLAND	25/03	27/03	40	20	4	0.20	0.21
HURRICANE ISLAND	25/03	27/03	12	2	3	0.20	0.01
IVORY ISLAND	20/03	23/03	230	10	6	0.35	2.09
KITTYHAWK GROUP	25/03	27/03	75	30	1	0.65	0.04
KITTYHAWK GROUP	25/03	27/03	600	70	4	0.30	19.11
KITTYHAWK GROUP	25/03	27/03	300	60	6	0.30	17.64
LADY TRUTCH PASS	28/03	04/04	150	10	4	0.20	0.78
LADY TRUTCH PASS	28/03	04/04	350	10	6	0.25	3.68
LADY TRUTCH PASS	28/03	04/04	300	10	5	0.25	2.25
LADY TRUTCH PASS	28/03	04/04	200	15	8	0.35	4.68
LADY TRUTCH PASS	28/03	04/04	300	15	5	0.20	3.60
LADY TRUTCH PASS	28/03	04/04	60	50	5	0.15	2.55
LADY TRUTCH PASS	28/03	04/04	150	7	5	0.30	0.74
LADY TRUTCH PASS	28/03	04/04	660	33	5	0.20	17.42
LADY TRUTCH PASS	28/03	04/04	265	10	6	0.10	3.34
MANLEY ISLAND	24/03	25/03	60	40	6	0.30	2.35
MANLEY ISLAND	24/03	25/03	700	30	4	0.40	8.19
MANLEY ISLAND	24/03	25/03	50	3	2	0.60	0.01
MANLEY ISLAND	24/03	25/03	50	40	7	0.02	3.72
MCNAUGHTON GROUP	16/03	20/03	50	50	1	0.75	0.03
MCNAUGHTON GROUP	16/03	27/03	20	20	2	0.25	0.06
MCNAUGHTON GROUP	16/03	20/03	50	50	2	0.00	0.50
POWELL ANCHORAGE	13/03	18/03	2112	10	8	0.20	40.55
POWELL ANCHORAGE	13/03	18/03	880	6	7	0.30	7.02
POWELL ANCHORAGE	13/03	18/03	299	5	7	0.35	1.85
POWELL ANCHORAGE	13/03	18/03	299	5	9	0.20	3.59
POWELL ANCHORAGE	19/03	21/03	250	70	3	0.33	4.69
POWELL ANCHORAGE	19/03	22/03	450	17	5	0.05	7.27

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE SPAWNED START	END	LENGTH YDS.	WIDTH YDS.	INTEN-SITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:07 ,BELLA BELLA		CONTINUED					
POWELL ANCHORAGE	19/03	22/03	200	10	6	0.10	2.52
POWELL ANCHORAGE	15/03	20/03	264	10	[illegible]	0.10	5.71
POWELL ANCHORAGE	10/03	14/03	150	14	4	0.50	0.69
POWELL ANCHORAGE	10/03	14/03	700	65	[illegible]	0.15	54.15
POWELL ANCHORAGE	10/03	14/03	200	50	5	0.40	6.00
PRINCESS ALICE ISLAND	24/03	24/03	50	20	4	0.25	0.49
PRINCESS ALICE ISLAND	18/03	20/03	150	75	5	0.20	9.00
PRINCESS ALICE ISLAND	18/03	20/03	50	20	6	0.25	1.05
PRINCESS ALICE ISLAND	18/03	20/03	150	75	7	0.20	17.10
PRINCESS ALICE ISLAND	18/03	24/03	125	50	7	0.20	9.50
PRINCESS ALICE ISLAND	18/03	20/03	150	25	7	0.20	5.70
PRINCESS ALICE ISLAND	18/03	20/03	300	15	7	0.40	5.13
PRINCESS ALICE ISLAND	18/03	20/03	300	25	3	0.40	1.80
PRINCESS ALICE ISLAND	18/03	20/03	150	20	6	0.20	3.36
PRINCESS ALICE ISLAND	18/03	20/03	200	80	5	0.20	12.80
REID PASSAGE	10/03	14/03	700	25	3	0.45	3.85
REID PASSAGE	10/03	14/03	170	6	4	0.50	0.33
SPITFIRE ISLAND	24/03	26/03	75	30	6	0.05	2.99
SPITFIRE ISLAND	24/03	26/03	400	20	3	0.40	1.92
SPITFIRE ISLAND	24/03	26/03	50	20	7	0.05	1.81
ST. JOHN HARBOUR	22/03	23/03	300	12	8	0.15	7.34
ST. JOHN HARBOUR	22/03	23/03	200	84	7	0.25	23.94
ST. JOHN HARBOUR	22/03	23/03	200	15	4	0.25	1.46
ST. JOHN HARBOUR	22/03	23/03	25	20	4	0.30	0.23
ST. JOHN HARBOUR	22/03	23/03	40	20	4	0.20	0.42
ST. JOHN HARBOUR	22/03	23/03	65	10	1	0.35	0.02
ST. JOHN HARBOUR	22/03	23/03	100	50	3	0.20	1.60
ST. JOHN HARBOUR	22/03	23/03	300	6	6	0.05	2.39
ST. JOHN HARBOUR	22/03	23/03	800	25	9	0.25	45.00
STRYKER ISLAND	18/03	20/03	200	45	5	0.10	8.10
STRYKER ISLAND	17/03	20/03	220	25	6	0.15	6.55
STRYKER ISLAND	17/03	20/03	450	80	7	0.10	61.56
STRYKER ISLAND	09/04	11/04	400	6	7	0.10	4.10
STRYKER ISLAND	09/04	11/04	425	12	7	0.10	8.72
STRYKER ISLAND	11/04	12/04	140	30	7	0.10	7.18
STRYKER ISLAND	10/04	12/04	600	8	3	0.20	1.54
STRYKER ISLAND	12/04	12/04	60	15	7	0.10	1.54
STRYKER ISLAND	05/03	05/03	275	5	1	0.30	0.05
STRYKER ISLAND	16/03	23/03	180	8	5	0.15	1.22
STRYKER ISLAND	17/03	18/03	225	40	6	0.10	11.34
STRYKER ISLAND	19/03	21/03	160	35	6	0.15	6.66
STRYKER ISLAND	19/03	20/03	900	10	6	0.10	11.34
STRYKER ISLAND	19/03	21/03	200	75	9	0.30	31.50
STRYKER ISLAND	19/03	21/03	700	8	7	0.05	10.11

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE START	SPAWNED END	LENGTH YDS.	WIDTH YDS.	INTEN-SITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:07 ,BELLA BELLA		CONTINUED					
STRYKER ISLAND	20/03	23/03	800	6	6	0.15	5.71
STRYKER ISLAND	20/03	23/03	350	75	9	0.30	55.13
STRYKER ISLAND	23/03	25/03	220	40	9	0.25	19.80
STRYKER ISLAND	23/03	24/03	150	8	7	0.15	1.94
STRYKER ISLAND	23/03	26/03	750	15	7	0.15	18.17
STRYKER ISLAND	23/03	26/03	175	40	7	0.30	9.31
STRYKER ISLAND	24/03	26/03	300	200	6	0.15	71.40
STRYKER ISLAND	24/03	27/03	225	30	7	0.10	11.55
STRYKER ISLAND	24/03	27/03	150	60	4	0.15	4.97
STRYKER ISLAND	24/03	27/03	1000	50	4	0.20	26.00
STRYKER ISLAND	25/03	26/03	220	15	7	0.20	5.02
STRYKER ISLAND	25/03	26/03	350	8	8	0.10	6.05
STRYKER ISLAND	29/03	30/03	100	30	8	0.05	6.84
STRYKER ISLAND	29/03	30/03	250	8	7	0.15	3.23
STRYKER ISLAND	03/04	03/04	120	30	5	0.30	2.52
STRYKER ISLAND	09/04	11/04	600	10	9	0.05	17.10
THOMPSON BAY (HEAD)	25/03	28/03	2800	8	7	0.10	38.30
THOMPSON BAY (HEAD)	25/03	28/03	100	50	4	0.20	2.60
THOMPSON BAY (HEAD)	09/04	10/04	600	8	5	0.10	4.32
THOMPSON BAY (HEAD)	09/04	10/04	240	10	5	0.15	2.04
THOMPSON BAY (HEAD)	09/04	10/04	300	20	6	0.05	7.98
THOMPSON BAY (HEAD)	24/03	26/03	80	60	7	0.05	8.66
THOMPSON BAY (HEAD)	25/03	28/03	200	5	6	0.10	1.26
THOMPSON BAY (HEAD)	25/03	28/03	400	8	7	0.10	5.47
THOMPSON BAY (HEAD)	25/03	28/03	125	10	5	0.20	1.00
THOMPSON BAY (HEAD)	09/04	10/04	750	15	4	0.15	6.21
WATCH ISLAND	20/03	23/03	600	15	5	0.25	6.75
WATCH ISLAND	13/03	18/03	2020	124	4	0.10	146.53
WATCH ISLAND	20/03	23/03	100	5	2	0.40	0.06
WATCH ISLAND	20/03	23/03	150	150	4	0.35	9.51
WATCH ISLAND	19/03	22/03	100	25	5	0.20	2.00
AREA TOTAL			55303				1435.71

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE START	SPAWNED END	LENGTH YDS.	WIDTH YDS.	INTEN-SITY	EST. DARE AREA	STD.ER. YDS (1000"S)
AREA:09 ,BELLEA COOLA							
BELLA COOLA	06/03	06/03	400	3	2	0.30	0.17
BELLA COOLA	09/03	09/03	100	15	4	0.05	0.93
BURKE CHANNEL	25/05	06/06	1400	1	6	0.10	1.76
BURKE CHANNEL	25/05	06/06	1200	2	8	0.20	4.61
BURKE CHANNEL	25/05	06/06	7000	2	6	0.15	16.66
BURKE CHANNEL	25/05	06/06	2000	2	4	0.15	2.21
BURKE CHANNEL	25/05	06/06	1600	3	5	0.30	3.36
FISH EGG INLET	27/03	01/04	50	[illegible]	2	0.40	0.02
FISH EGG INLET	27/03	01/04	120	5	1	0.50	0.02
FISH EGG INLET	27/03	01/04	100	[illegible]	5	0.20	0.24
FISH EGG INLET	27/03	01/04	100	3	6	0.20	0.34
FISH EGG INLET	27/03	01/04	300	5	1	0.30	0.06
FITZ HUGH SOUND	19/03	26/03	20	20	6	0.10	0.59
FITZ HUGH SOUND	19/03	26/03	30	3	5	0.20	0.07
FITZ HUGH SOUND	19/03	26/03	50	4	3	0.30	0.06
FITZ HUGH SOUND	19/03	26/03	300	4	5	0.10	1.03
FITZ HUGH SOUND	19/03	26/03	100	20	3	0.40	0.48
FITZ HUGH SOUND	19/03	26/03	200	10	4	0.20	1.04
KEITH ANCHORAGE	18/03	21/03	65	20	3	0.15	0.44
KEITH ANCHORAGE	18/03	21/03	340	4	6	0.30	1.33
KEITH ANCHORAGE	18/03	21/03	400	3	5	0.15	1.02
KEITH ANCHORAGE	18/03	21/03	175	150	5	0.20	21.00
KEITH ANCHORAGE	18/03	21/03	100	25	2	0.05	0.48
KEITH ANCHORAGE	19/03	20/03	550	3	5	0.15	1.40
KEITH ANCHORAGE	18/03	21/03	2000	4	6	0.20	8.96
KEITH ANCHORAGE	18/03	21/03	100	50	6	0.15	5.95
KEITH ANCHORAGE	18/03	21/03	300	65	4	0.15	10.76
KITKITUNE INLET	30/03	01/04	400	3	5	0.10	1.03
KITSAULT INLET	30/03	01/04	100	2	5	0.05	0.19
KITSAULT INLET	30/03	01/04	400	20	5	0.40	4.80
KITSAULT INLET	30/03	01/04	200	15	5	0.20	2.40
GRENVILLE POINT	30/03	01/04	60	3	4	0.20	0.13
KITSPIOX POINT	29/03	01/04	50	15	6	0.20	0.84
KITSUMKAL POINT	30/03	01/04	200	10	3	0.30	0.62
KITSUNDA POINT	30/03	04/04	50	7	4	0.05	0.22
KITSUNKLA POINT	30/03	04/04	100	5	5	0.05	0.43
KITSUPSA POINT	30/03	04/04	150	15	3	0.60	0.36
KITSUSIS POINT	29/03	01/04	100	2	6	0.20	0.40
KITSUTAC POINT	30/03	04/04	100	10	4	0.15	0.55
KITSUWIE POINT	30/03	04/04	375	10	6	0.20	4.20
KITWANGA POINT	30/03	04/04	60	15	4	0.40	0.35
KITWINCOOL POINT	30/03	04/04	375	30	3	0.60	1.00
KITWINSKLE POINT	30/03	04/04	200	3	3	0.20	0.19
KITWINSLE POINT	30/03	04/04	60	3	1	0.30	0.01

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE SPAWNED START	END	LENGTH YDS.	WIDTH YDS.	INTEN-SITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:08 ,BELLEA COOLA		CONTINUED					
KWAKUME POINT	30/03	04/04	85	10	3	0.30	0.24
KWAKUME POINT	30/03	04/04	20	15	4	0.10	0.18
KWAKUME POINT	30/03	04/04	150	50	3	0.60	1.20
KWAKUME POINT	30/03	01/04	700	5	5	0.20	2.80
KWAKUME POINT	30/03	01/04	400	5	3	0.20	0.64
KWAKUME POINT	30/03	01/04	400	2	5	0.20	0.64
KWAKUME POINT	30/03	01/04	150	20	4	0.40	1.17
KWAKUME POINT	30/03	01/04	30	10	5	0.10	0.27
KWAKUME POINT	30/03	01/04	100	75	3	0.40	1.80
KWAKUME POINT	30/03	01/04	175	100	3	0.40	4.20
KWAKUME POINT	30/03	01/04	50	5	5	0.20	0.20
KWAKUME POINT	30/03	01/04	30	10	3	0.30	0.08
KWAKUME POINT	30/03	01/04	70	70	3	0.30	1.37
KWAKUME POINT	30/03	01/04	15	15	5	0.30	0.16
KWAKUME POINT	30/03	01/04	200	5	5	0.20	0.80
KWAKUME POINT	30/03	01/04	375	4	6	0.20	1.68
KWAKUME POINT	30/03	01/04	50	5	7	0.20	0.38
KWAKUME POINT	30/03	01/04	325	20	7	0.20	9.88
KWAKUME POINT	30/03	01/04	275	5	3	0.30	0.39
NAMU	28/03	29/03	50	10	3	0.10	0.18
NAMU	28/03	29/03	300	150	4	0.10	26.33
NORTH BENTINCK ARM	05/03	06/03	4000	2	2	0.15	1.36
NORTH BENTINCK ARM	07/03	08/03	400	2	3	0.05	0.30
NORTH BENTINCK ARM	04/03	06/03	1000	3	2	0.05	0.57
NORTH BENTINCK ARM	06/03	09/03	250	10	2	0.25	0.38
NORTH BENTINCK ARM	06/03	08/03	50	5	2	0.25	0.04
NORTH BENTINCK ARM	06/03	08/03	300	8	2	0.20	0.38
NORTH BENTINCK ARM	04/03	06/03	400	1	2	0.10	0.07
NORTH BENTINCK ARM	07/03	09/03	800	15	4	0.05	7.41
NORTH BENTINCK ARM	09/03	09/03	200	2	2	0.25	0.06
NORTH BENTINCK ARM	04/03	07/03	400	2	2	0.20	0.13
PRUTH BAY	19/03	21/03	500	3	7	0.15	2.42
PRUTH BAY	19/03	21/03	660	3	6	0.20	2.22
PRUTH BAY	19/03	21/03	100	50	5	0.30	3.50
PRUTH BAY	19/03	21/03	200	100	5	0.20	16.00
PRUTH BAY	19/03	21/03	300	40	3	0.20	3.84
SALVAGE ISLAND	27/03	01/04	50	20	3	0.40	0.24
AREA TOTAL			35780				197.10

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE SPAWNED START	END	LENGTH YDS.	WIDTH YDS.	INTEN-SITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:09 ,RIVERS INLET							
GOOSE BAY	29/03	02/04	3000	2	2	0.50	0.60
KILBELL BAY	16/03	17/03	5200	2	2	0.30	1.46
MOSES INLET	18/03	19/03	500	2	2	0.40	0.12
RIVERS INLET-HEAD	16/03	17/03	3400	2	2	0.60	0.54
RIVERS INLET-HEAD	16/03	17/03	1200	2	2	0.20	0.38
SHOTBOLT BAY	16/03	17/03	4000	1	1	0.60	0.08
AREA TOTAL			17300				3.18
AREA:10 ,SMITH INLET							
DRY CREEK	16/04	18/04	500	20	3	0.50	2.00
DRY CREEK	16/04	18/04	250	2	3	0.50	0.10
DRY CREEK	16/04	18/04	150	2	3	0.50	0.06
DRY CREEK	16/04	18/04	150	15	3	0.40	0.54
DRY CREEK	16/04	18/04	100	10	2	0.50	0.10
DRY CREEK	16/04	18/04	100	2	3	0.40	0.05
DRY CREEK	16/04	18/04	950	7	4	0.40	2.59
DRY CREEK	16/04	18/04	1000	30	2	0.50	3.00
DRY CREEK	16/04	18/04	1200	30	2	0.40	4.[illegible]
SMITH INLET	16/04	18/04	300	2	3	0.50	[illegible].12
TAKUSH HARBOUR	21/03	27/03	600	2	3	0.50	0.24
TAKUSH HARBOUR	23/03	27/03	800	3	5	0.05	2.28
TAKUSH HARBOUR	23/03	27/03	400	3	5	0.10	1.08
TAKUSH HARBOUR	25/03	27/03	400	2	[illegible]	0.50	0.16
TAKUSH HARBOUR	28/03	30/03	600	1	[illegible]	0.75	0.03
AREA TOTAL			7500				16.67

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE SPAWNED START	END	LENGTH YDS.	WIDTH YDS.	INTEN-SITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:11 ,SEYMOUR BELIZE							
NUGENT SOUND	28/03	28/03	200	1	5	0.00	0.20
NUGENT SOUND	28/03	28/03	1900	1	2	0.00	0.38
SEYMOUR INLET	06/04	06/04	1000	1	2	0.00	0.20
SEYMOUR INLET	06/04	06/04	1000	1	2	0.00	0.20
AREA TOTAL			4100				0.98
AREA:12 ,ALERT BAY							
BEND ISLAND	08/04	08/04	250	8	9	0.00	6.00
CLAYDON BAY	14/03	14/03	1800	10	7	0.00	34.20
CLIO CHANNEL	08/04	08/04	500	100	9	0.00	150.00
CLIO CHANNEL	08/04	08/04	350	8	9	0.00	8.40
CLIO CHANNEL	08/04	08/04	100	3	9	0.00	0.90
GRAPPLER SOUND	12/03	12/03	600	5	3	0.00	1.20
JOE COVE	19/03	19/03	40	10	2	0.40	0.05
KINGCOME INLET	22/03	22/03	1000	2	3	0.10	0.72
KINGCOME INLET	13/03	13/03	600	5	2	0.80	0.12
KNIGHT INLET	02/04	02/04	4200	1	3	0.00	1.68
KNIGHT INLET	11/03	11/03	400	6	5	0.00	2.40
KNIGHT INLET	11/03	11/03	2560	3	4	0.20	3.99
KNIGHT INLET	11/03	11/03	8800	3	4	0.10	15.44
KNIGHT INLET	02/04	02/04	100	4	2	0.00	0.08
KNIGHT INLET	22/03	22/03	900	4	1	0.50	0.09
KNIGHT INLET	22/03	22/03	900	4	1	0.50	0.09
KNIGHT INLET	02/04	02/04	6200	4	2	0.30	3.47
KNIGHT INLET	11/03	11/03	1800	2	4	0.10	2.11
KNIGHT INLET	11/03	11/03	4460	2	3	0.50	1.79
KNIGHT INLET	15/03	15/03	15000	4	4	0.10	35.10
KNIGHT INLET	11/03	11/03	600	6	4	0.10	2.11
KNIGHT INLET	11/03	11/03	400	15	4	0.20	3.12
MONDAY ANCHORAGE	17/03	17/03	200	10	2	0.40	0.24
MONDAY ANCHORAGE	17/03	17/03	25	10	3	0.50	0.05
MONDAY ANCHORAGE	19/03	19/03	220	2	2	0.40	0.05
WAKEMAN SOUND	29/03	31/03	200	3	5	0.15	0.51
WAKEMAN SOUND	12/04	12/04	100	5	3	0.00	0.20

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE SPAWNED START	END	LENGTH YDS.	WIDTH YDS.	INTENSITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:12 ,ALERT BAY	CONTINUED						
WAKEMAN SOUND	16/03	16/03	3700	3	1	0.70	0.17
WAKEMAN SOUND	16/03	16/03	300	2	5	0.00	0.60
WAKEMAN SOUND	16/03	16/03	800	3	3	0.50	0.48
WAKEMAN SOUND	16/03	16/03	2800	2	2	0.40	1.34
WAKEMAN SOUND	16/03	16/03	1000	1	1	0.80	0.01
WAKEMAN SOUND	16/03	16/03	600	50	4	0.20	15.60
WAKEMAN SOUND	16/03	16/03	600	15	2	0.15	3.06
WAKEMAN SOUND	22/03	22/03	2100	2	2	0.10	0.76
WAKEMAN SOUND	22/03	22/03	100	4	3	0.00	0.16
WAKEMAN SOUND	22/03	22/03	3400	2	2	0.10	1.22
WAKEMAN SOUND	29/03	31/03	50	5	3	0.15	0.09
WAKEMAN SOUND	16/03	16/03	1500	5	2	0.50	0.75
WAKEMAN SOUND	16/03	16/03	100	10	3	0.00	0.40
AREA TOTAL			69355				298.75

AREA:13 ,QUATHIASKI

BELLS BAY	11/04	18/04	35	35	5	0.00	1.23
BELLS BAY	12/04	13/04	400	12	6	0.05	6.38
BELLS BAY	12/04	13/04	300	50	4	0.05	9.26
BELLS BAY	11/04	12/04	640	12	9	0.05	21.89
BELLS BAY	12/04	12/04	300	10	5	0.10	2.70
BELLS BAY	12/04	13/04	350	15	4	0.05	3.24
BELLS BAY	12/04	13/04	500	3	3	0.15	0.51
BUTE INLET	21/03	21/03	300	100	1	0.05	1.43
BUTE INLET	21/03	21/03	300	10	1	0.05	0.14
BUTE INLET	23/03	23/03	2460	3	1	0.10	0.33
BUTE INLET	23/03	23/03	200	15	5	0.05	2.85
BUTE INLET	25/03	25/03	200	3	4	0.05	0.37
BUTE INLET	25/03	25/03	100	15	1	0.50	0.04
BUTE INLET	23/03	25/03	150	5	3	0.05	0.29
BUTE INLET	24/03	24/03	1000	4	3	0.10	1.44
BUTE INLET	22/03	22/03	3560	125	1	0.10	20.03
BUTE INLET	25/03	25/03	120	15	1	0.40	0.05
BUTE INLET	25/03	25/03	50	4	4	0.10	0.12

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE START	SPAWNED END	LENGTH YDS.	WIDTH YDS.	INTEN-SITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:13 ,QUATHIASKI		CONTINUED					
BUTE INLET	26/03	26/03	500	4	3	0.10	0.72
BUTE INLET	23/03	23/03	15	2	1	0.00	0.00
BUTE INLET	23/03	23/03	50	3	1	0.00	0.01
BUTE INLET	23/03	23/03	50	15	1	0.05	0.04
BUTE INLET	24/03	24/03	300	10	4	0.05	1.85
BUTE INLET	24/03	26/03	100	12	3	0.05	0.46
BUTE INLET	21/03	21/03	100	10	1	0.20	0.04
BUTE INLET	24/03	24/03	2000	3	3	0.10	2.16
BUTE INLET	20/03	20/03	300	10	3	0.00	1.20
BUTE INLET	20/03	20/03	2400	5	1	0.10	0.54
CAPE MUDGE	10/03	11/03	200	20	3	0.10	1.44
CAPE MUDGE	11/03	11/03	50	75	3	0.10	1.35
CAPE MUDGE	09/03	10/03	100	15	3	0.20	0.48
FRANCISCO POINT	10/03	11/03	200	25	5	0.20	4.00
FRANCISCO POINT	08/03	09/03	40	10	3	0.50	0.08
FRANCISCO POINT	09/03	09/03	20	20	3	0.10	0.14
HERIOT BAY	26/03	26/03	100	10	3	0.15	0.34
HERIOT BAY	13/04	13/04	200	6	3	0.10	0.43
LOUGHBOROUGH INLET	19/04	19/04	100	2	3	0.05	0.08
AREA TOTAL			17790				87.66
AREA:14 ,COMOX							
BOYLE POINT	02/03	04/03	100	30	5	0.40	1.80
COMOX HARBOUR	08/03	08/03	1300	700	3	0.50	182.00
COMOX HARBOUR	08/03	08/03	1500	200	3	0.25	90.00
DENMAN ISLAND	04/03	05/03	150	20	3	0.55	0.54
DENMAN ISLAND	04/03	08/03	100	25	5	0.75	0.63
DENMAN ISLAND	04/03	08/03	75	20	7	0.80	0.57
DENMAN ISLAND	04/03	10/03	50	15	3	0.75	0.08
DENMAN ISLAND	04/03	10/03	500	20	5	0.60	4.00
DENMAN ISLAND	04/03	08/03	1400	20	5	0.40	16.80
FRENCH CREEK	16/03	16/03	1500	30	3	0.30	12.60
GARTLEY POINT	08/03	24/03	1800	50	5	0.60	36.00
GARTLEY POINT	08/03	24/03	2400	60	6	0.60	80.64

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE START	SPAWNED END	LENGTH YDS.	WIDTH YDS.	INTEN-SITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:14 ,COMOX		CONTINUED					
KOMAS BLUFF	04/03	08/03	2300	75	5	0.20	138.00
KOMAS BLUFF	04/03	08/03	2000	75	5	0.80	30.00
LAMBERT CHANNEL	02/03	08/03	2000	600	5	0.50	600.00
LAMBERT CHANNEL	02/03	08/03	350	100	5	0.60	14.00
LAMBERT CHANNEL	02/03	08/03	400	150	5	0.20	48.00
LAMBERT CHANNEL	02/03	08/03	100	100	9	0.00	30.00
LAMBERT CHANNEL	02/03	08/03	2000	30	7	0.20	91.20
PARKSVILLE	10/03	13/03	3000	250	5	0.10	675.00
PARKSVILLE	10/03	13/03	300	100	6	0.50	21.00
QUALICUM BEACH	12/03	12/03	2000	10	4	0.60	5.20
QUALICUM BEACH	12/03	12/03	2000	10	3	0.10	7.20
SEAL ISLETS	04/03	08/03	200	75	7	0.20	22.80
SEAL ISLETS	04/03	08/03	450	100	7	0.15	72.68
SEAL ISLETS	04/03	08/03	2000	400	5	0.80	160.00
TRIBUNE BAY	07/03	07/03	400	200	5	0.75	20.00
TRIBUNE BAY	07/03	07/03	100	100	3	0.20	3.20
TRIBUNE BAY	07/03	07/03	200	50	5	0.60	4.00
UNION BAY	08/03	08/03	1300	50	4	0.75	10.56
WILLEMAR BLUFF	08/03	08/03	1000	30	5	0.50	15.00
WILLEMAR BLUFF	08/03	08/03	2000	50	5	0.60	40.00
WILLEMAR BLUFF	08/03	08/03	1000	20	3	0.80	1.60
AREA TOTAL			35975				2435.10
AREA:15 ,WESTVIEW							
HARWOOD ISLAND	11/03	13/03	2000	125	4	0.05	154.38
HARWOOD ISLAND	11/03	13/03	450	450	5	0.00	202.50
SAVARY ISLAND	07/03	09/03	1000	600	4	0.30	273.00
SAVARY ISLAND	07/03	09/03	400	100	3	0.05	15.20
SAVARY ISLAND	07/03	09/03	400	75	2	0.05	5.70
SCUTTLE BAY	03/03	04/03	200	75	1	0.00	0.75
SCUTTLE BAY	05/03	06/03	500	150	4	0.00	48.75
SCUTTLE BAY	05/03	06/03	425	75	3	0.00	12.75
SCUTTLE BAY	05/03	06/03	400	75	3	0.00	12.00
SLIAMON VILLAGE	02/03	06/03	1050	200	3	0.00	84.00

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE START	SPAWNED END	LENGTH YDS.	WIDTH YDS.	INTEN-SITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:15 ,WESTVIEW		CONTINUED					
SLIAMMON VILLAGE	10/03	12/03	1500	100	5	0.20	120.00
SLIAMMON VILLAGE	10/03	12/03	200	50	2	0.50	1.00
AREA TOTAL			8525				930.03
AREA:16 ,PENDER HARBOUR							
PORPOISE BAY	21/04	22/04	880	10	1	0.85	0.07
AREA TOTAL			880				0.07
AREA:17 ,NANAIMO							
BOAT HARBOUR	01/03	02/03	2111	16	2	0.15	5.75
BOAT HARBOUR	04/04	08/04	656	11	2	0.20	1.15
COFFIN POINT (IS.)	27/03	22/03	2843	87	2	0.10	44.52
COFFIN POINT (IS.)	04/03	07/03	219	5	1	0.20	0.04
FLAT TOP ISLAND	20/03	24/03	2953	77	4	0.10	133.02
FLAT TOP ISLAND	21/03	25/03	4374	60	4	0.10	153.53
FLAT TOP ISLAND	01/03	04/03	273	11	2	0.20	0.48
ICARUS POINT	03/04	07/04	547	22	1	0.00	0.60
ICARUS POINT	15/03	19/03	1312	16	1	0.00	1.05
KUPER ISLAND	20/03	26/03	4593	39	3	0.10	54.57
NANOOSE BAY	15/03	19/03	1312	22	2	0.00	5.77
NANOOSE BAY HEAD	01/03	03/03	5151	109	1	0.00	28.07
NANOOSE BAY HEAD	16/03	18/03	711	547	1	0.17	16.14
NORTH COVE	22/03	25/03	519	78	3	0.05	19.32
NORTH COVE	20/03	25/03	2816	39	3	0.05	52.43

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE START	SPAWNED END	LENGTH YDS.	WIDTH YDS.	INTEN-SITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:17 ,NANAIMO		CONTINUED					
PREEDY HARBOUR	17/03	19/03	547	109	1	0.20	2.38
THETIS ISLAND	15/03	16/03	437	109	1	0.10	2.14
AREA TOTAL			31374				520.96
AREA:18 ,COWICHAN							
ANNETTE INLET	14/03	15/03	50	50	1	0.50	0.07
ANNETTE INLET	23/02	24/02	450	25	3	0.70	1.35
ANNETTE INLET	03/03	03/03	350	80	1	0.75	0.35
BOOT COVE	17/03	17/03	100	25	1	0.75	0.03
CHAIN ISLANDS	09/03	10/03	110	40	3	0.50	0.88
GANGES HARBOUR	05/03	05/03	300	40	4	0.50	3.90
GANGES HARBOUR	13/03	13/03	400	50	3	0.50	4.00
GANGES HARBOUR	13/03	14/03	450	60	3	0.50	5.40
GANGES HARBOUR	16/03	17/03	350	60	4	0.40	8.19
GANGES HARBOUR	17/03	17/03	200	100	3	0.70	2.40
GANGES HARBOUR	21/03	22/03	350	200	3	0.75	7.00
GANGES HARBOUR	25/03	26/03	500	25	2	0.70	0.75
GANGES HARBOUR	20/03	20/03	150	40	2	0.60	0.48
GANGES HARBOUR	20/03	21/03	250	30	3	0.75	0.75
GANGES HARBOUR	16/03	17/03	350	60	5	0.40	12.60
GANGES HARBOUR	06/03	06/03	1500	250	4	0.75	60.94
GLENTHORNE PASSAGE	10/03	10/03	40	20	2	0.50	0.08
GLENTHORNE PASSAGE	15/03	16/03	15	10	4	0.60	0.04
GLENTHORNE PASSAGE	24/02	24/02	75	20	2	0.75	0.08
GLENTHORNE PASSAGE	18/02	18/02	150	50	2	0.50	0.75
GLENTHORNE PASSAGE	10/03	10/03	40	10	2	0.50	0.04
GLENTHORNE PASSAGE	05/03	06/03	150	20	3	0.50	0.60
LONG HARBOUR	17/03	18/03	200	75	6	0.50	10.50
LONG HARBOUR	16/03	16/03	110	70	2	0.50	0.77
LYALL HARBOUR	07/03	08/03	75	30	1	0.25	0.08
SELBY COVE	05/03	05/03	800	100	1	0.50	2.00

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE START	SPAWNED END	LENGTH YDS.	WIDTH YDS.	INTEN-SITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:18 ,COWICHAN							
AREA TOTAL			7515				124.03
AREA:23 ,BARKLEY SOUND							
DAVID ISLAND	18/03	18/03	448	16	3	0.35	1.87
DAVID ISLAND	18/03	18/03	306	38	5	0.20	9.30
FORBES ISLAND	20/03	21/03	273	27	5	0.20	5.90
FORBES ISLAND	20/03	21/03	273	16	4	0.30	1.99
FORBES ISLAND	20/03	21/03	164	44	6	0.55	4.55
LARKIN ISLAND	19/03	20/03	694	27	7	0.20	28.07
LARKIN ISLAND	19/03	20/03	377	22	7	0.30	11.03
LARKIN ISLAND	19/03	20/03	437	33	3	0.33	3.87
LARKIN ISLAND	19/03	20/03	547	22	5	0.63	4.45
LARKIN ISLAND	19/03	20/03	481	11	8	0.75	3.18
LYALL POINT	19/03	19/03	640	5	4	0.25	1.56
LYALL POINT	19/03	19/03	793	5	4	0.30	1.81
MACOAH PASSAGE	19/03	19/03	437	16	7	0.56	5.84
MAGGIE RIVER	18/03	18/03	656	27	6	0.50	12.49
MAGGIE RIVER	18/03	18/03	328	16	4	0.65	1.19
MAGGIE RIVER	19/03	19/03	766	27	7	0.35	25.55
MAGGIE RIVER	19/03	19/03	919	16	5	0.40	8.82
MAGGIE RIVER	19/03	19/03	694	13	6	0.60	5.05
MAGGIE RIVER	18/03	18/03	601	38	6	0.45	17.58
OTTAWAY ISLET	20/03	20/03	328	5	4	0.35	0.70
ROWLANDS ISLET	20/03	20/03	218	5	4	0.20	0.57
SPILLING ISLET	20/03	20/03	262	9	7	0.25	3.36
SPILLING ISLET	20/03	20/03	257	11	6	0.30	2.77
ST. INES ISLAND	19/03	19/03	448	9	4	0.30	1.03
ST. INES ISLAND	19/03	19/03	394	11	3	0.30	1.21
STOPPER ISLANDS	19/03	20/03	355	27	1	0.61	0.09
STOPPER ISLANDS	19/03	20/03	591	71	9	0.82	21.40
STOPPER ISLANDS	19/03	20/03	547	77	5	0.26	31.17
STOPPER ISLANDS	19/03	20/03	465	16	9	0.10	20.09
STOPPER ISLANDS	19/03	20/03	634	22	5	0.27	10 18
STOPPER ISLANDS	19/03	20/03	437	27	6	0.54	7.60
STOPPER ISLANDS	19/03	20/03	558	22	2	0.10	2.21

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE START	SPAWNED END	LENGTH YDS.	WIDTH YDS.	INTEN-SITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:23 ,BARKLEY SOUND		CONTINUED					
STOPPER ISLANDS	19/03	20/03	519	49	5	0.09	23.14
STOPPER ISLANDS	19/03	20/03	1094	22	9	0.00	72.20
STOPPER ISLANDS	19/03	20/03	487	11	6	0.55	3.38
TOQUART BAY	19/03	20/03	629	11	6	0.40	5.81
TOQUART BAY	19/03	20/03	454	16	6	0.40	6.10
TOQUART BAY	20/03	20/03	525	9	5	0.40	2.04
TOQUART BAY	20/03	20/03	733	5	5	0.50	1.84
TOQUART BAY	17/03	21/03	1329	33	3	0.30	12.28
TOQUART BAY	19/03	19/03	547	16	4	0.34	3.76
TOQUART BAY	19/03	20/03	350	5	8	0.50	2.10
TOQUART BAY	20/03	20/03	303	5	2	0.20	0.30
TOQUART BAY	20/03	20/03	798	11	4	0.35	3.71
TOQUART BAY	20/03	20/03	831	11	4	0.40	3.56
TWO RIVERS +	17/03	21/03	1728	16	3	0.30	7.74
TWO RIVERS +	17/03	21/03	547	38	5	0.30	14.55
TWO RIVERS +	17/03	21/03	1205	87	4	0.25	54.50
TWO RIVERS +	17/03	21/03	492	55	6	0.30	26.52
AREA TOTAL			20049				501.52
AREA:24 ,CLAYOQUOT SOUND							
ATLEA RIVER	23/03	23/03	126	7	9	0.00	2.65
ATLEA RIVER	23/03	23/03	126	20	9	0.00	7.56
ELBOW BANK	15/03	15/03	70	20	5	0.10	1.26
ELBOW BANK	15/03	15/03	100	100	5	0.25	7.50
ELBOW BANK	15/03	15/03	100	100	3	0.50	2.00
ELBOW BANK	15/03	15/03	100	2	3	0.25	0.06
ELBOW BANK	15/03	15/03	39	1	3	0.20	0.13
ELBOW BANK	15/03	15/03	1400	399	1	0.50	13.97
ELBOW BANK	15/03	15/03	20	7	3	0.00	0.06
ELBOW BANK	15/03	15/03	20	3	3	0.00	0.02
FELICE ISLAND	16/03	16/03	150	79	6	0.50	3.05
FELICE ISLAND	16/03	16/03	500	300	3	0.00	60.00
FELICE ISLAND	16/03	16/03	400	300	5	0.40	72.00
FLORIS ISLAND (N. & W.)	06/04	06/04	200	14	9	0.20	6.72

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE START	SPAWNED END	LENGTH YDS.	WIDTH YDS.	INTENSITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:24 ,CLAYOQUOT SOUND		CONTINUED					
FLORES ISLAND (N. & W.)	06/04	06/04	125	10	9	0.25	2.81
HESQUIAT HARBOUR	26/02	06/03	328	2	3	0.20	0.21
HESQUIAT HARBOUR	26/02	06/03	109	2	3	0.20	0.07
HESQUIAT HARBOUR	26/02	06/03	547	2	3	0.20	0.35
HESQUIAT HARBOUR	26/02	06/03	109	2	3	0.20	0.07
HESQUIAT HARBOUR	26/02	06/03	164	2	3	0.20	0.10
HESQUIAT HARBOUR	26/02	06/03	766	3	3	0.20	0.74
HESQUIAT HARBOUR	26/02	06/03	547	4	3	0.20	0.70
HESQUIAT HARBOUR	26/02	06/03	656	8	3	0.20	1.68
HESQUIAT HARBOUR	26/02	06/03	875	2	3	0.20	0.56
HESQUIAT HARBOUR	26/02	06/03	656	10	3	0.20	2.10
HOOTLA KOOTLA +	09/03	14/03	60	20	3	0.10	0.43
HOOTLA KOOTLA +	09/03	14/03	170	10	5	0.10	1.53
HOOTLA KOOTLA +	09/03	14/03	49	15	3	0.05	0.20
HOOTLA KOOTLA +	09/03	14/03	35	30	5	0.50	0.53
HOOTLA KOOTLA +	09/03	14/03	74	15	3	0.10	0.40
HOOTLA KOOTLA +	09/03	14/03	200	3	5	0.10	0.54
HOOTLA KOOTLA +	09/03	14/03	150	25	7	0.10	6.42
HOOTLA KOOTLA +	09/03	14/03	175	14	3	0.15	0.83
HOOTLA KOOTLA +	09/03	14/03	125	20	3	0.10	0.90
HOOTLA KOOTLA +	09/03	14/03	175	8	3	0.15	0.48
HOOTLA KOOTLA +	09/03	14/03	20	2	3	0.25	0.02
HOOTLA KOOTLA +	09/03	14/03	20	3	3	0.25	0.02
HOOTLA KOOTLA +	09/03	14/03	30	1	3	0.20	0.01
HOOTLA KOOTLA +	09/03	14/03	30	2	5	0.15	0.05
HOOTLA KOOTLA +	09/03	14/03	8	8	[illegible]	0.15	0.03
HOOTLA KOOTLA +	09/03	14/03	40	2	[illegible]	0.20	0.02
KRAAN ISLAND	19/03	19/03	14	8	[illegible]	0.25	0.01
KRAAN ISLAND	19/03	19/03	100	3	[illegible]	0.20	0.10
KRAAN ISLAND	19/03	19/03	50	3	1	0.10	0.01
KRAAN ISLAND	19/03	19/03	25	10	1	0.20	0.01
KRAAN ISLAND	19/03	19/03	60	9	3	0.15	0.19
KRAAN ISLAND	19/03	19/03	125	3	1	0.10	0.02
KRAAN ISLAND	19/03	19/03	150	20	1	0.25	0.11
KRAAN ISLAND	19/03	19/03	100	39	1	0.20	0.16
MATILDA INLET	19/03	19/03	300	7	7	0.25	2.99
MATILDA INLET	19/03	19/03	100	7	7	0.25	1.00
MATILDA INLET	19/03	19/03	150	7	7	0.25	1.50
MATILDA INLET	19/03	19/03	20	177	1	0.10	0.16
MATILDA INLET	19/03	19/03	200	168	3	0.25	10.08
MATILDA INLET	19/03	19/03	150	39	3	0.25	1.76
MOSQUITO HARBOUR	14/03	14/03	224	10	5	0.30	1.57
MOSQUITO HARBOUR	14/03	14/03	493	8	4	0.25	1.94
MOSQUITO HARBOUR	14/03	14/03	300	7	5	0.40	1.26

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE SPAWNED START	END	LENGTH YDS.	WIDTH YDS.	INTENSITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:24 ,CLAYOQUOT SOUND	CONTINUED						
MOSQUITO HARBOUR	14/03	14/03	399	10	6	0.50	2.80
MOSQUITO HARBOUR	14/03	14/03	39	1	8	0.40	0.17
OPITSAT RESERVE	16/03	16/03	300	14	3	0.30	1.18
OPITSAT RESERVE	16/03	16/03	300	200	3	0.20	19.20
OPITSAT RESERVE	16/03	16/03	200	160	3	0.20	6.40
OPITSAT RESERVE	16/03	16/03	100	5	3	0.40	0.12
REFUGE (HOT SPRINGS) COVE	21/03	21/03	35	8	5	0.10	0.25
REFUGE (HOT SPRINGS) COVE	21/03	21/03	40	10	1	0.00	0.02
REFUGE (HOT SPRINGS) COVE	21/03	21/03	200	20	5	0.20	3.20
REFUGE (HOT SPRINGS) COVE	28/03	28/03	100	5	3	0.30	0.14
REFUGE (HOT SPRINGS) COVE	21/03	21/03	14	5	5	0.00	0.07
REFUGE (HOT SPRINGS) COVE	21/03	21/03	150	14	1	0.20	0.09
REFUGE (HOT SPRINGS) COVE	21/03	21/03	301	10	3	0.10	1.08
REFUGE (HOT SPRINGS) COVE	21/03	21/03	14	5	1	0.10	0.00
REFUGE (HOT SPRINGS) COVE	21/03	21/03	100	8	5	0.10	0.72
REFUGE (HOT SPRINGS) COVE	21/03	21/03	25	5	3	0.20	0.04
REFUGE (HOT SPRINGS) COVE	21/03	21/03	10	7	3	0.00	0.03
REFUGE (HOT SPRINGS) COVE	21/03	21/03	125	8	3	0.15	0.34
REFUGE (HOT SPRINGS) COVE	21/03	21/03	150	5	5	0.00	0.75
REFUGE (HOT SPRINGS) COVE	21/03	21/03	35	8	5	0.10	0.25
REFUGE (HOT SPRINGS) COVE	21/03	21/03	14	5	5	0.00	0.07
REFUGE (HOT SPRINGS) COVE	21/03	21/03	150	14	1	0.20	0.09
ROBERT POINT	18/03	18/03	200	24	3	0.20	1.54
ROBERT POINT	18/03	18/03	60	20	3	0.20	0.36
ROBERT POINT	18/03	18/03	75	10	3	0.10	0.27
SARANAC ISLAND	15/03	15/03	30	3	3	0.30	0.03
SARANAC ISLAND	15/03	15/03	30	2	3	0.15	0.02
STEAMER COVE	19/03	19/03	49	15	1	0.15	0.03
STEAMER COVE	19/03	19/03	100	2	3	0.10	0.07
STEAMER COVE	19/03	19/03	75	20	1	0.25	0.06
STEAMER COVE	19/03	19/03	30	10	1	0.20	0.02
STUBBS ISLAND	12/03	14/03	150	29	3	0.30	1.22
STUBBS ISLAND	12/03	14/03	125	60	3	0.40	1.80
STUBBS ISLAND	12/03	14/03	700	1693	5	0.20	948.08
STUBBS ISLAND	12/03	14/03	200	200	1	0.30	1.40
STUBBS ISLAND	12/03	14/03	30	30	1	0.00	0.05
STUBBS ISLAND	12/03	14/03	150	25	1	0.40	0.11
VARGAS ISLAND	15/03	15/03	399	100	3	0.50	7.98
VARGAS ISLAND	15/03	15/03	25	20	3	0.25	0.15
VARGAS ISLAND	15/03	15/03	699	125	5	0.40	67.43
VARGAS ISLAND	15/03	15/03	150	15	5	0.25	1.09
VARGAS ISLAND	15/03	15/03	300	100	5	0.25	22.50
VARGAS ISLAND	15/03	15/03	500	200	5	0.20	80.00
VARGAS ISLAND	15/03	15/03	300	125	5	0.30	26.25

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE START	SPAWNED END	LENGTH YDS.	WIDTH YDS.	INTEN-SITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:24 ,CLAYOQUOT SOUND		CONTINUED					
YELLOW BANK	15/03	15/03	599	400	3	0.60	38.34
YELLOW BANK	15/03	15/03	100	449	3	0.80	3.59
AREA TOTAL			20237				1461.80
AREA:25 ,NOOTKA SOUND							
FRIENDLY COVE	09/03	13/03	350	50	5	0.20	14.00
FRIENDLY COVE	09/03	13/03	150	25	6	0.20	4.20
FRIENDLY COVE	09/03	13/03	250	40	8	0.70	7.20
FRIENDLY COVE	09/03	13/03	250	50	3	0.50	2.50
MARVINAS BAY/ISLAND	01/04	01/04	300	40	9	0.20	28.80
MARVINAS BAY/ISLAND	21/03	22/03	160	100	5	0.80	3.20
MARVINAS BAY/ISLAND	21/03	22/03	350	100	1	0.70	0.53
MARVINAS BAY/ISLAND	21/03	22/03	300	30	9	0.40	16.20
MARVINAS BAY/ISLAND	21/03	22/03	250	100	1	0.80	0.25
MARVINAS BAY/ISLAND	21/03	22/03	350	50	9	0.40	31.50
MARVINAS BAY/ISLAND	21/03	22/03	70	40	9	0.50	4.20
MCKAY PASSAGE	09/03	13/03	500	100	6	0.30	49.00
MCKAY PASSAGE	09/03	13/03	300	50	5	0.70	4.50
NUCHATLITZ INLET	14/03	14/03	80	50	9	0.00	12.00
NUCHATLITZ INLET	14/03	14/03	330	150	6	0.80	15.96
NUCHATLITZ INLET	14/03	14/03	80	50	9	0.00	12.00
NUCHATLITZ INLET	28/02	11/03	380	100	4	0.40	14.82
NUCHATLITZ INLET	14/03	14/03	220	100	4	0.30	10.01
NUCHATLITZ INLET	14/03	14/03	150	80	5	0.00	12.00
NUCHATLITZ INLET	28/02	11/03	550	240	4	0.40	51.48
NUCHATLITZ INLET	14/03	14/03	300	70	2	0.00	4.20
NUCHATLITZ INLET	14/03	14/03	140	80	1	0.00	0.56
NUCHATLITZ INLET	28/02	11/03	270	210	5	0.50	29.70
NUCHATLITZ INLET	14/03	14/03	830	300	1	0.30	8.72
NUCHATLITZ INLET	14/03	14/03	890	130	4	0.00	104.13
NUCHATLITZ INLET	14/03	14/03	550	140	5	0.00	77.00
PANTOJA ISLANDS	09/03	13/03	350	100	1	0.50	0.88
PORT LANGFORD	27/02	01/03	230	130	4	0.50	9.72
PORT LANGFORD	27/02	01/03	160	70	4	0.20	5.02

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE START	SPAWNED END	LENGTH YDS.	WIDTH YDS.	INTEN-SITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:25 ,HOOTKA SOUND		CONTINUED					
PORT LANGFORD	15/03	15/03	50	20	4	0.00	0.65
PORT LANGFORD	27/02	01/03	150	70	7	0.30	13.97
PORT LANGFORD	27/02	01/03	120	80	6	0.30	9.41
PORT LANGFORD	27/02	01/03	100	50	3	0.00	2.00
PORT LANGFORD	15/03	15/03	750	20	6	0.00	21.90
PORT LANGFORD	15/03	15/03	1200	20	3	0.30	6.72
PORT LANGFORD	27/02	01/03	280	180	7	0.40	57.46
PORT LANGFORD	27/02	01/03	100	70	5	0.40	4.20
PORT LANGFORD	27/02	01/03	180	60	5	0.50	5.40
PORT LANGFORD	15/03	15/03	150	140	1	0.30	0.74
PORT LANGFORD	15/03	15/03	200	60	3	0.30	3.36
PORT LANGFORD	27/02	01/03	120	60	7	0.30	9.58
PORT LANGFORD	27/02	01/03	240	70	5	0.30	11.76
PORT LANGFORD	27/02	01/03	210	50	3	0.40	2.52
PORT LANGFORD	27/02	01/03	230	100	6	0.30	22.54
PORT LANGFORD	27/02	01/03	260	60	5	0.50	7.80
PORT LANGFORD	27/02	01/03	220	50	6	0.30	10.78
PORT LANGFORD	27/02	01/03	200	30	4	0.30	2.73
PORT LANGFORD	27/02	01/03	50	50	9	0.00	7.50
AREA TOTAL			13950				735.20
AREA:27 ,QUATSINO SOUND							
FORWARD INLET	06/03	06/03	750	180	7	0.00	256.50
FORWARD INLET	04/03	06/03	350	150	7	0.00	99.75
FORWARD INLET	04/03	04/03	200	50	5	0.00	10.00
FORWARD INLET	04/03	04/03	1000	180	6	0.00	252.00
GREENWOOD POINT	07/03	07/03	300	150	7	0.10	76.95
HAZARD POINT	08/03	08/03	400	30	5	0.20	9.60
HAZARD POINT	08/03	09/03	750	300	5	0.20	180.00
LEESON HARBOUR	08/03	09/03	400	50	4	0.10	11.70
LEESON HARBOUR	08/03	09/03	550	50	5	0.10	24.75
LEESON HARBOUR	04/03	07/03	500	25	4	0.70	2.44
LEESON HARBOUR	04/03	07/03	1000	100	4	0.00	13.00
MATHEWS ISLAND	09/03	11/03	500	30	6	0.10	18.90

HERRING SPAWN SUMMARY TABLE FOR 1981 OCT. 27, 1981

SPAWNING GROUND	DATE START	SPAWNED END	LENGTH YDS.	WIDTH YDS.	INTENSITY	EST. BARE AREA	STD.SQ. YDS (1000"S)
AREA:27 ,QUATSINO SOUND		CONTINUED					
MATHEWS ISLAND	09/03	11/03	300	25	7	0.10	12.83
MATHEWS ISLAND	11/03	12/03	800	350	6	0.20	313.60
MATHEWS ISLAND	11/03	12/03	200	30	7	0.30	13.30
NORTH HARBOUR	09/03	11/03	400	5	6	0.10	12.60
AREA TOTAL			8400				1307.92
GRAND TOTAL			578389				14653.16

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Fig. 1. Department of Fisheries & Oceans
Statistical Map - northern area.

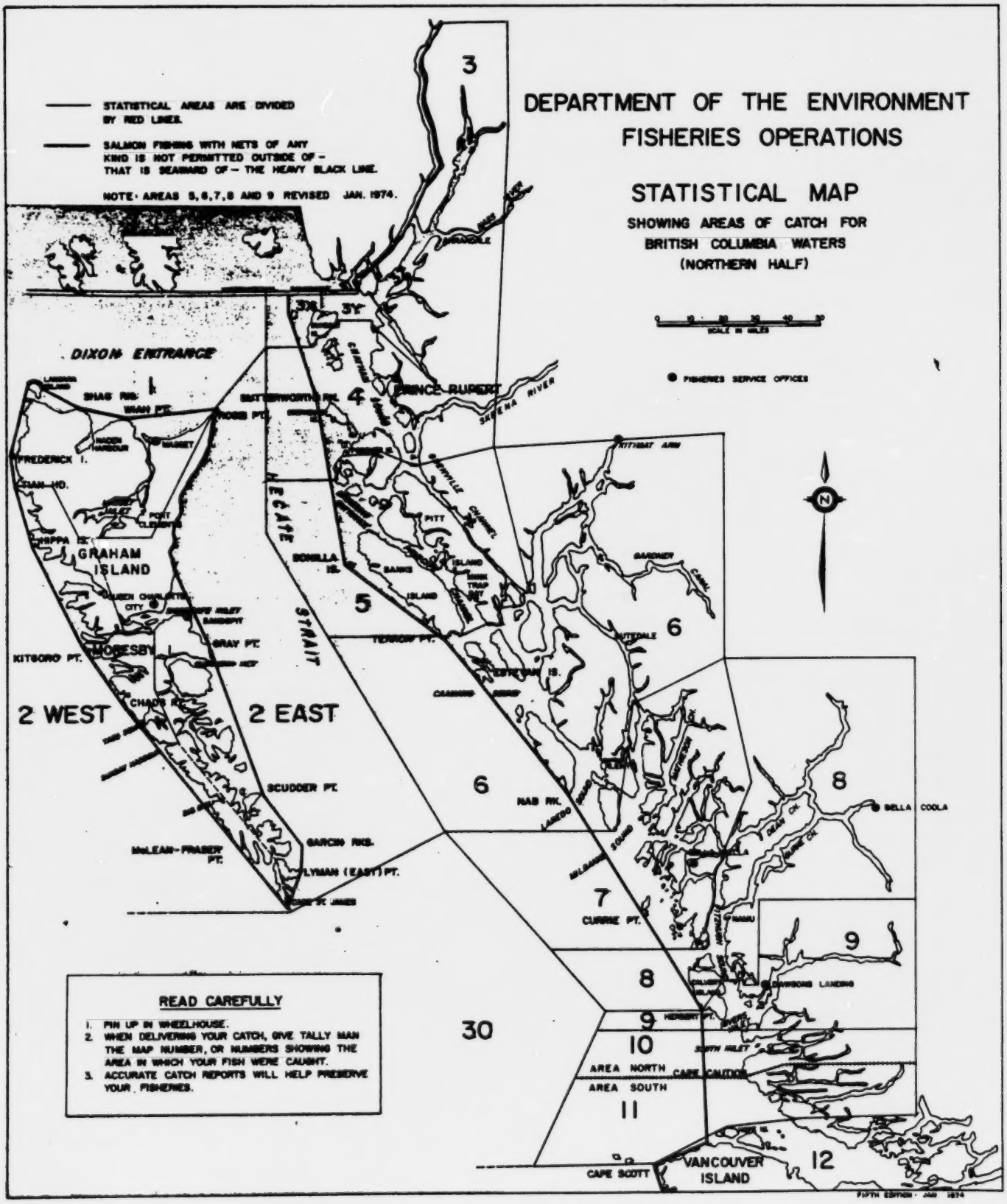

STATISTICAL AREAS ARE DIVIDED BY RED LINES.
SALMON FISHING WITH NETS OF ANY KIND IS NOT PERMITTED OUTSIDE OF - THAT IS SEAWARD OF - THE HEAVY BLACK LINE.
NOTE - AREAS 5, 6, 7, 8 AND 9 REVISED JAN. 1974.
DEPARTMENT OF THE ENVIRONMENT
FISHERIES OPERATIONS
STATISTICAL MAP
SHOWING AREAS OF CATCH FOR BRITISH COLUMBIA WATERS (NORTHERN HALF)
FISHERIES SERVICE OFFICES
DIXON ENTRANCE
PRINCE RUPERT
GRAHAM ISLAND
MORESBY I.
HECATE STRAIT
2 WEST
2 EAST
SCUDDER PT.
McLEAN-FRASER PT.
LYMAN (EAST) PT.
KITSORO PT.
GRAY PT.
TERRORY PT.
CURRIE PT.
NAB PK.
BELLA COOLA
CAPE SCOTT
VANCOUVER ISLAND
AREA NORTH
AREA SOUTH
CAPE CAUTION
30
READ CAREFULLY
1. PIN UP IN WHEELHOUSE.
2. WHEN DELIVERING YOUR CATCH, GIVE TALLY MAN THE MAP NUMBER, OR NUMBERS SHOWING THE AREA IN WHICH YOUR FISH WERE CAUGHT.
3. ACCURATE CATCH REPORTS WILL HELP PRESERVE YOUR FISHERIES.
FIFTH EDITION - JAN 1974

Fig. 2. Department of Fisheries & Oceans
Statistical Map - southern area.

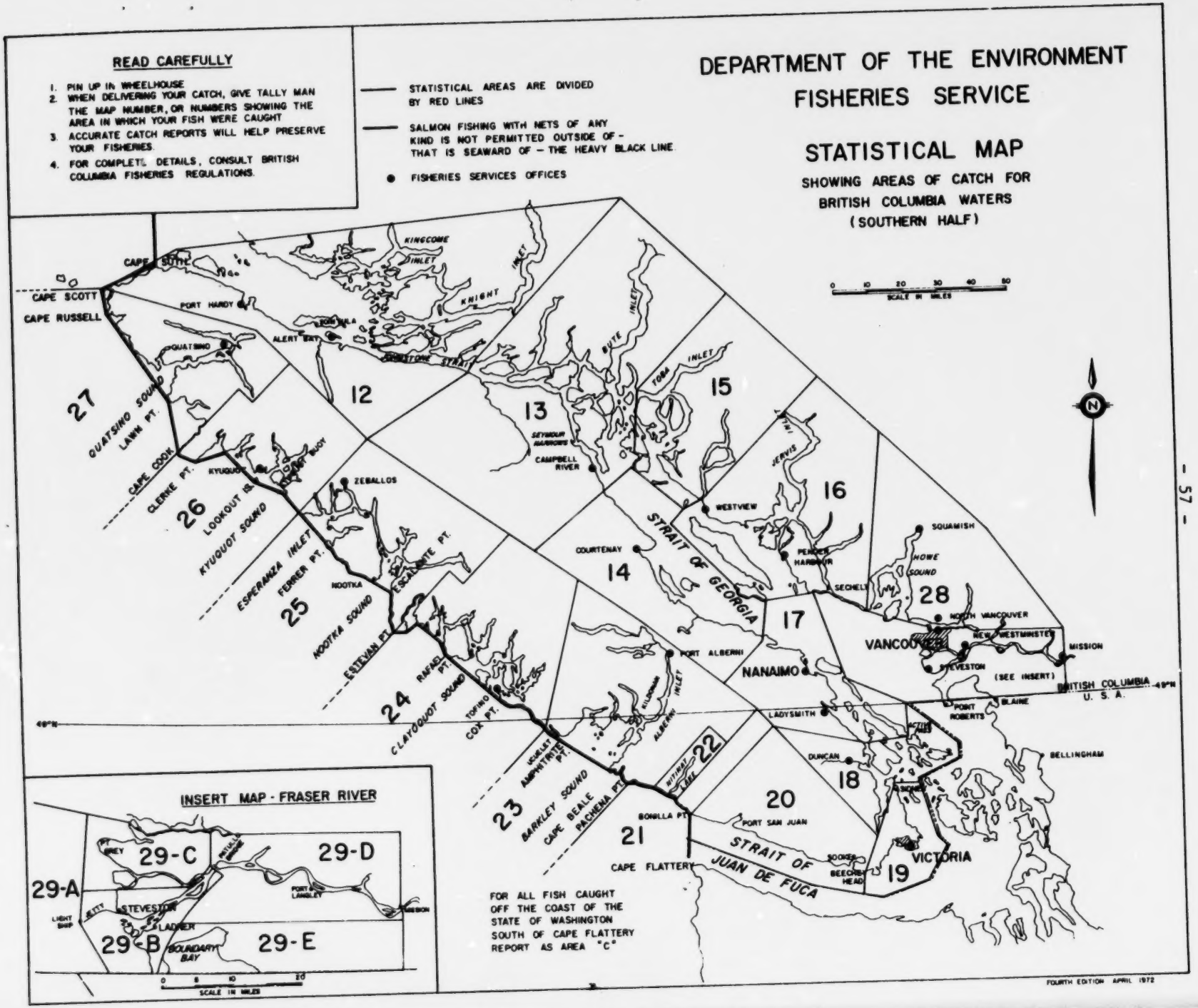

READ CAREFULLY
1. PIN UP IN WHEELHOUSE
2. WHEN DELIVERING YOUR CATCH, GIVE TALLY MAN THE MAP NUMBER, OR NUMBERS SHOWING THE AREA IN WHICH YOUR FISH WERE CAUGHT
3. ACCURATE CATCH REPORTS WILL HELP PRESERVE YOUR FISHERIES.
4. FOR COMPLETE DETAILS, CONSULT BRITISH COLUMBIA FISHERIES REGULATIONS.
STATISTICAL AREAS ARE DIVIDED BY RED LINES
SALMON FISHING WITH NETS OF ANY KIND IS NOT PERMITTED OUTSIDE OF - THAT IS SEAWARD OF - THE HEAVY BLACK LINE.
FISHERIES SERVICES OFFICES
DEPARTMENT OF THE ENVIRONMENT
FISHERIES SERVICE
STATISTICAL MAP
SHOWING AREAS OF CATCH FOR BRITISH COLUMBIA WATERS (SOUTHERN HALF)
SCALE IN MILES
INSERT MAP - FRASER RIVER
29-A
29-B
29-C
29-D
29-E
FOR ALL FISH CAUGHT OFF THE COAST OF THE STATE OF WASHINGTON SOUTH OF CAPE FLATTERY REPORT AS AREA "C"
FOURTH EDITION APRIL 1972

Fig. 3. 1981 roe herring fishing locations; gear counts; and hailed catches (short tons).

A. Skincuttle Inlet, Area 2E

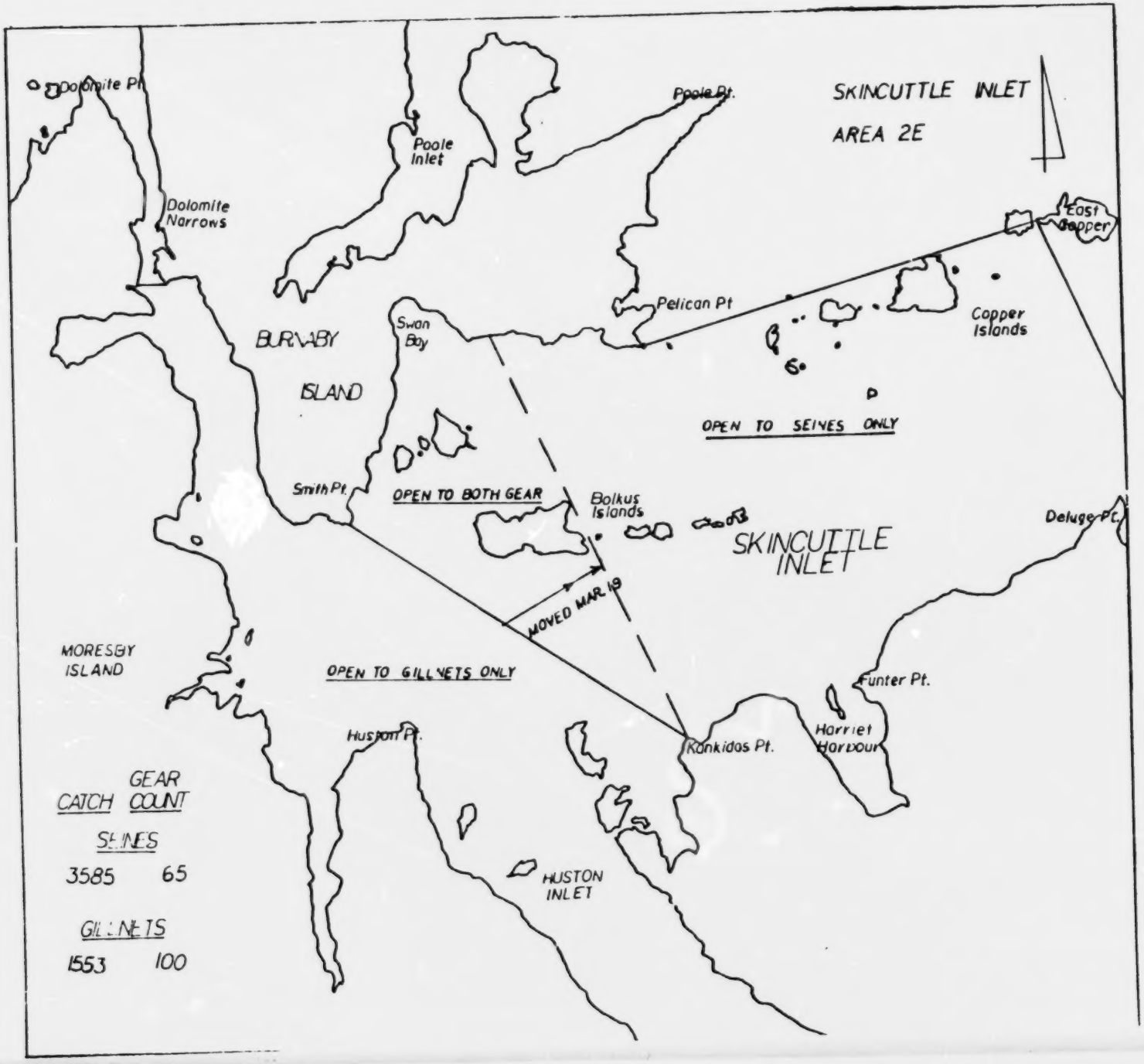

SKINCUTTLE INLET
AREA 2E
Dolomite Pt.
Dolomite Narrows
Poole Inlet
Poole Pt.
East Copper
Pelican Pt
Copper Islands
Swan Bay
BURNABY ISLAND
OPEN TO SEINES ONLY
Smith Pt.
OPEN TO BOTH GEAR
Bolkus Islands
SKINCUTTLE INLET
Deluge Pt.
MOVED MAR 19
MORESBY ISLAND
OPEN TO GILLNETS ONLY
Hunter Pt.
Huston Pt.
Rankidas Pt.
Harriet Harbour
HUSTON INLET
CATCH
GEAR COUNT
SEINES
3585 65
GILLNETS
1553 100

Fig. 3. 1981 roe herring fishing locations; gear counts; and hailed catches (short tons).

B. Atli Inlet, Area 2E

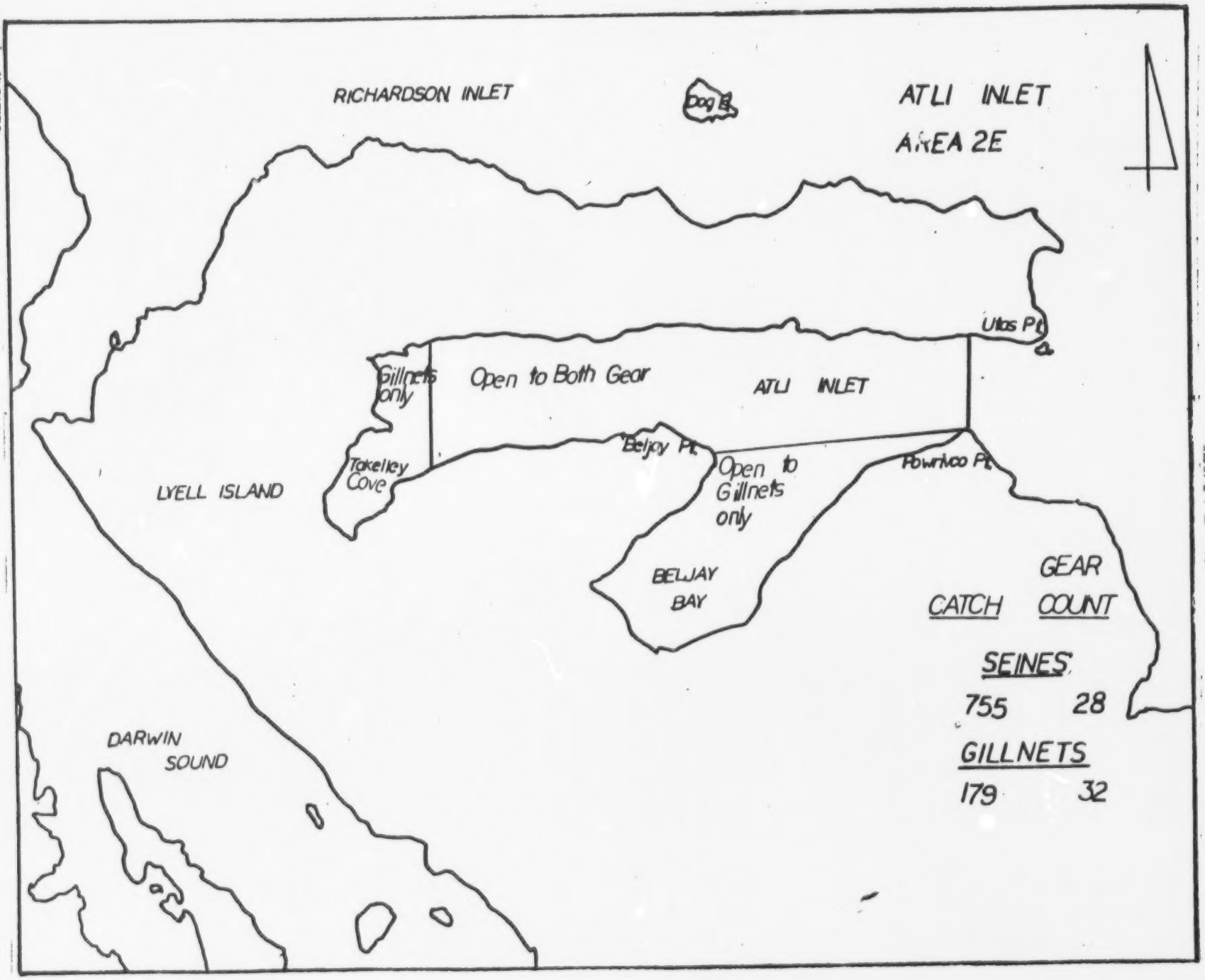

RICHARDSON INLET
Dog I.
ATLI INLET
AREA 2E
Utas Pt.
Gillnets only
Open to Both Gear
ATLI INLET
Takelley Cove
LYELL ISLAND
Beljay Pt.
Open to Gillnets only
Powrivoo Pt.
BELJAY BAY
GEAR
CATCH COUNT
SEINES
755 28
GILLNETS
179 32
DARWIN SOUND

Fig. 3. 1981 roe herring fishing locations; gear counts; and hailed catches (short tons).

C. Inskip Channel, Area 2W

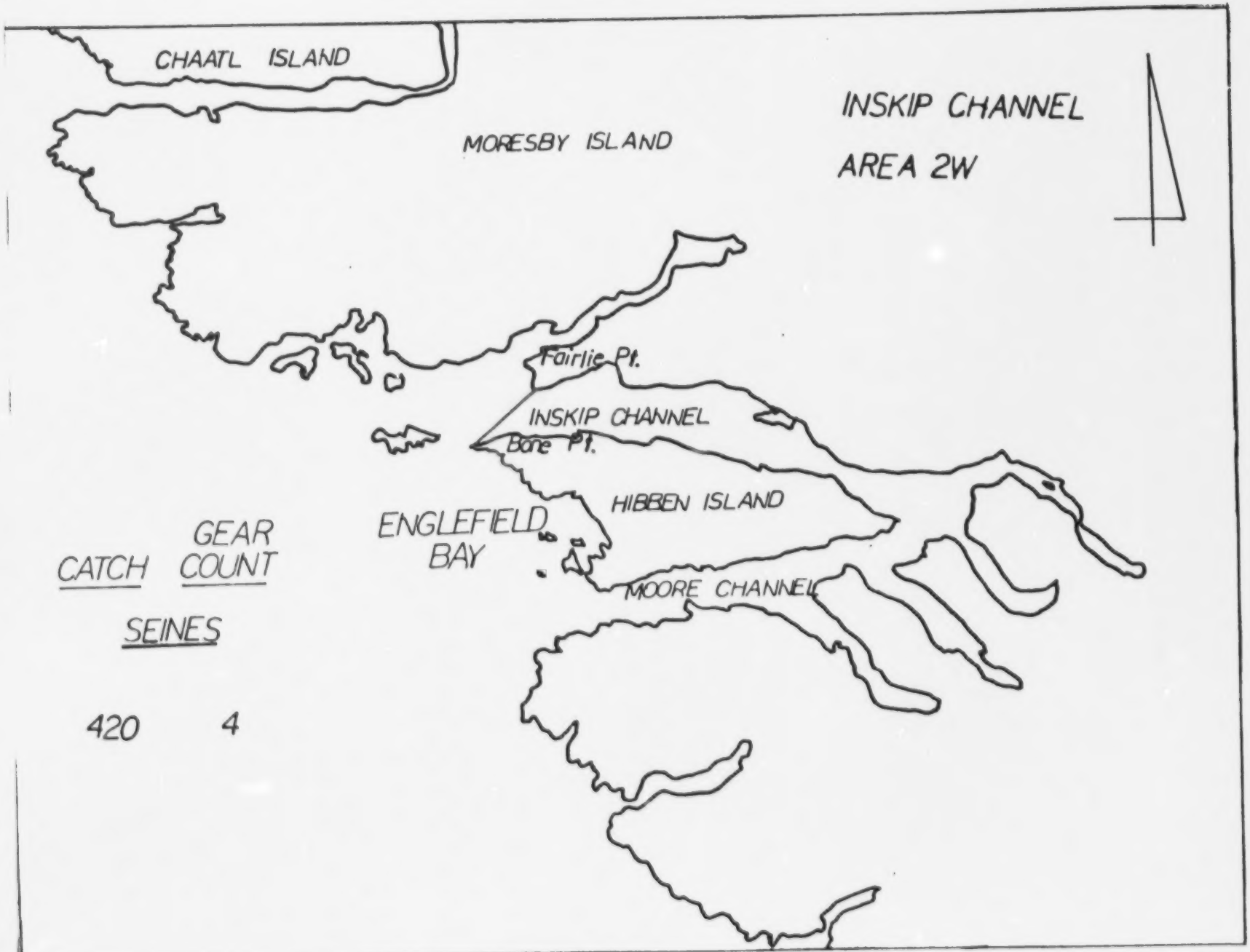

CHAATL ISLAND
MORESBY ISLAND
INSKIP CHANNEL
AREA 2W
Fairlie Pt.
INSKIP CHANNEL
Bare Pt.
HIBBEN ISLAND
ENGLEFIELD BAY
MOORE CHANNEL
GEAR
CATCH COUNT
SEINES
420 4

Fig. 3. 1981 roe herring fishing locations; gear counts; and hailed catches (short tons).

D. Rennell Sound, Area 2W

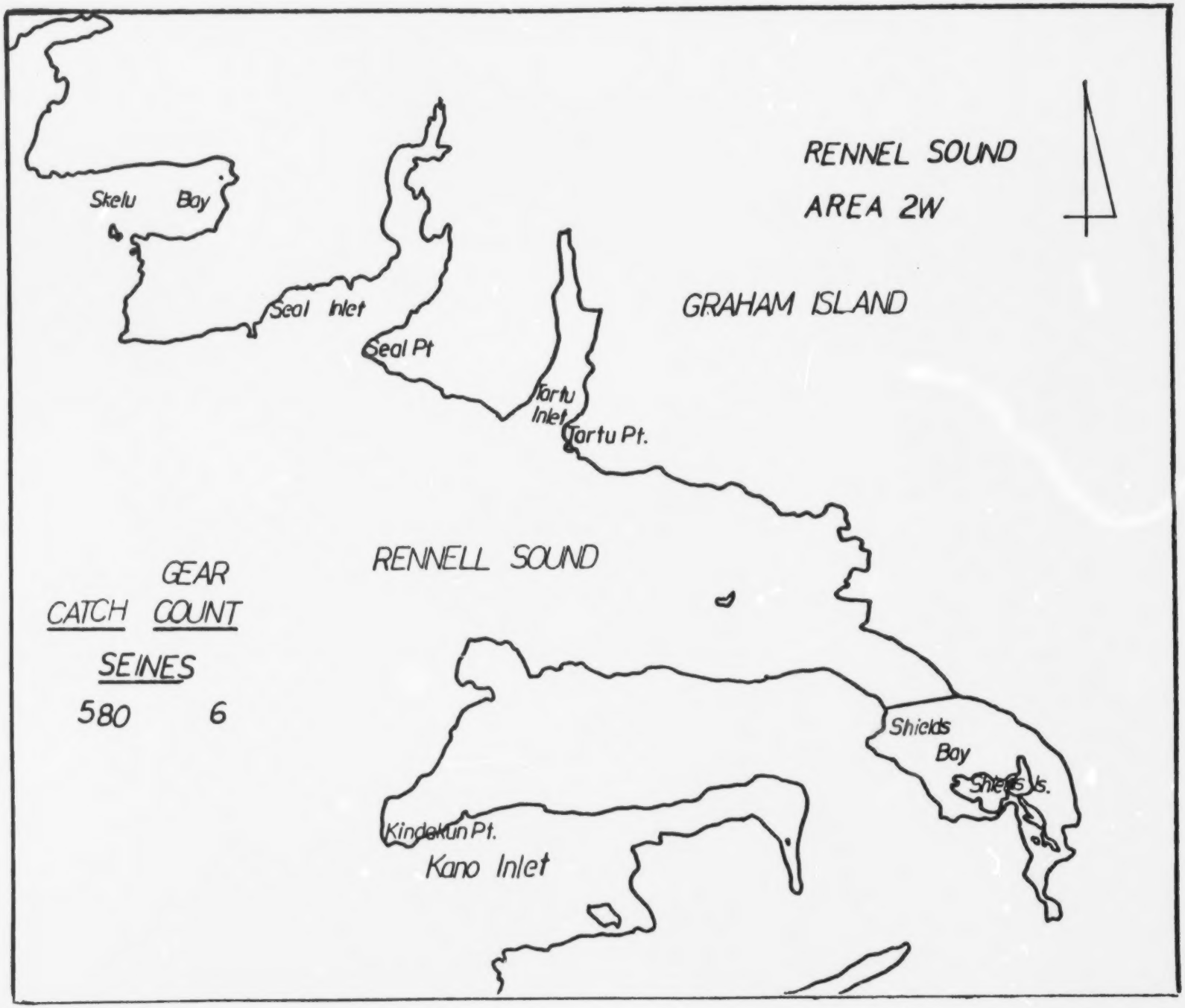

RENNEL SOUND
AREA 2W
Skelu Bay
Seal Inlet
Seal Pt
GRAHAM ISLAND
Tartu Inlet
Tartu Pt.
RENNELL SOUND
GEAR
CATCH COUNT
SEINES
580 6
Shields Bay
Shields Is.
Kindekun Pt.
Kano Inlet

Fig. 3. 1981 roe herring fishing locations; gear counts; and hailed catches (short tons).

E. Kitkatla Inlet, Area 5

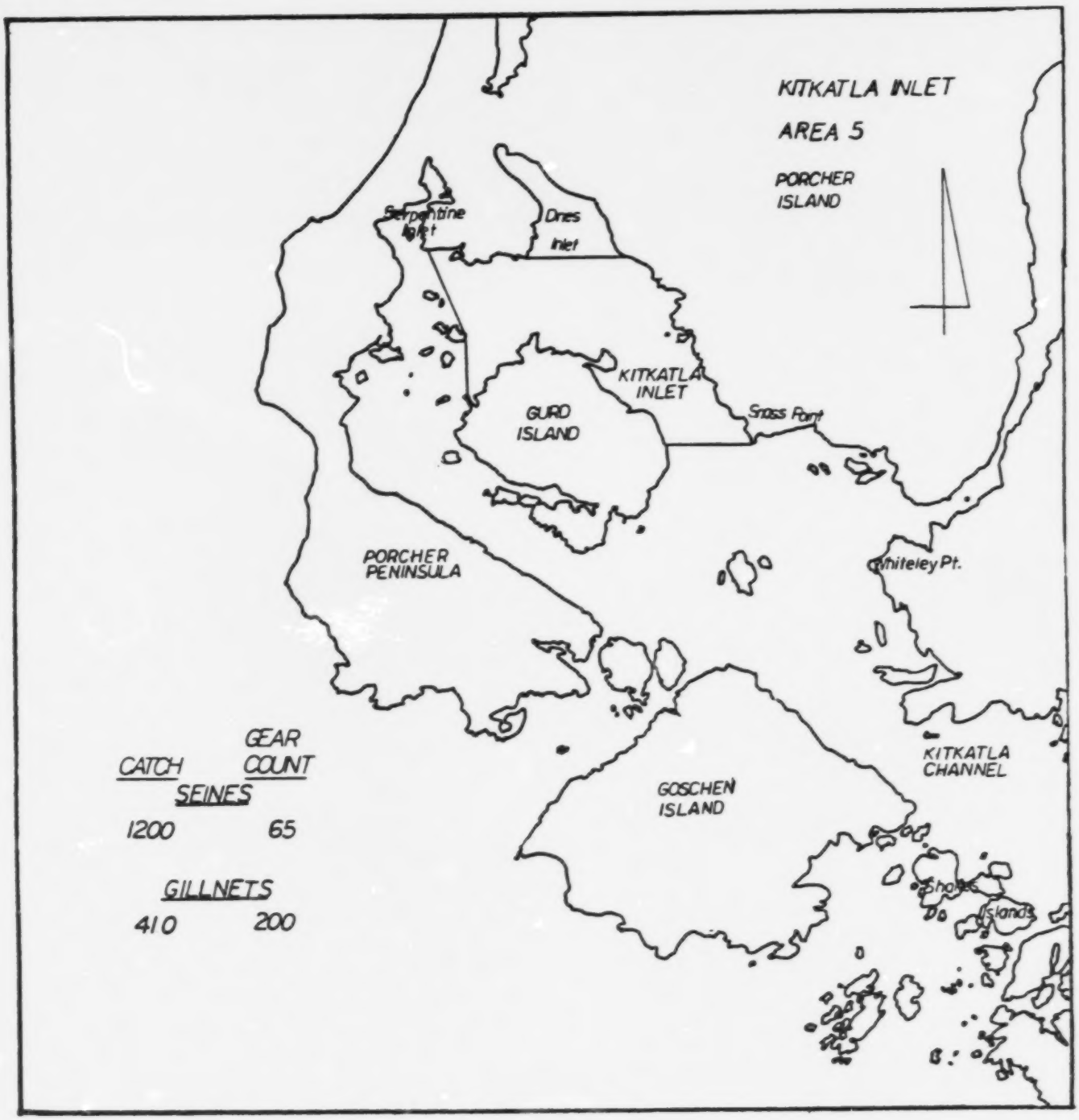

KITKATLA INLET
AREA 5
PORCHER ISLAND
Serpentine Inlet
Dnes Inlet
KITKATLA INLET
GURD ISLAND
Sross Port
PORCHER PENINSULA
Whiteley Pt.
KITKATLA CHANNEL
GOSCHEN ISLAND
Shoals
Islands
GEAR
CATCH COUNT
SEINES
1200 65
GILLNETS
410 200

Fig. 3. 1981 roe herring fishing locations; gear counts; and hailed catches (short tons).

F. Weeteeam Bay, Area 6

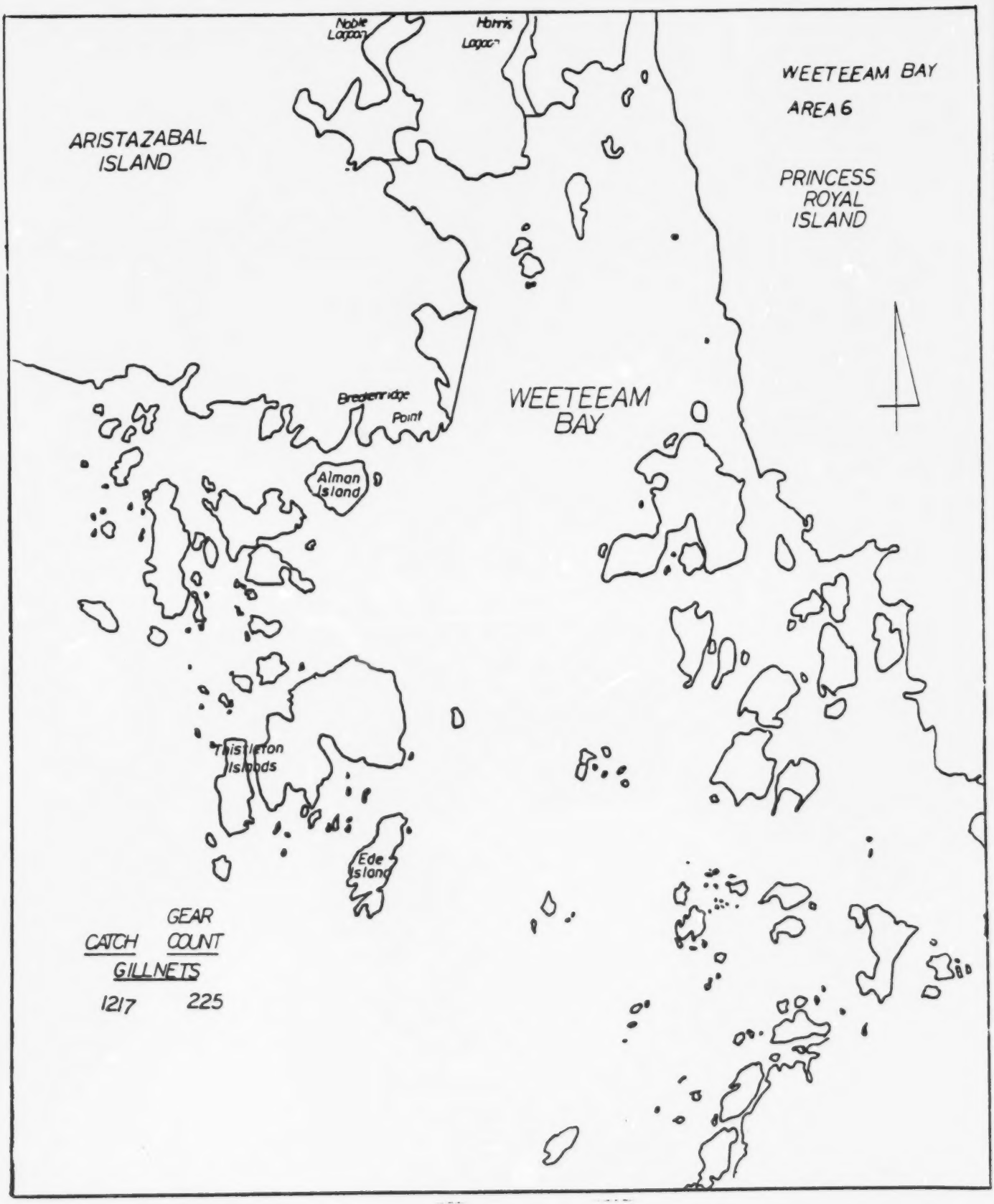

Noble Lagoon
Harris Lagoon
WEETEEAM BAY
AREA 6
ARISTAZABAL ISLAND
PRINCESS ROYAL ISLAND
Brederridge Point
WEETEEAM BAY
Alman Island
Thistleton Islands
Ede Island
GEAR
CATCH COUNT
GILLNETS
1217 225

Fig. 3. 1981 roe herring fishing locations; gear counts; and hailed catches (short tons).

G. Kitasu Bay, Area 6

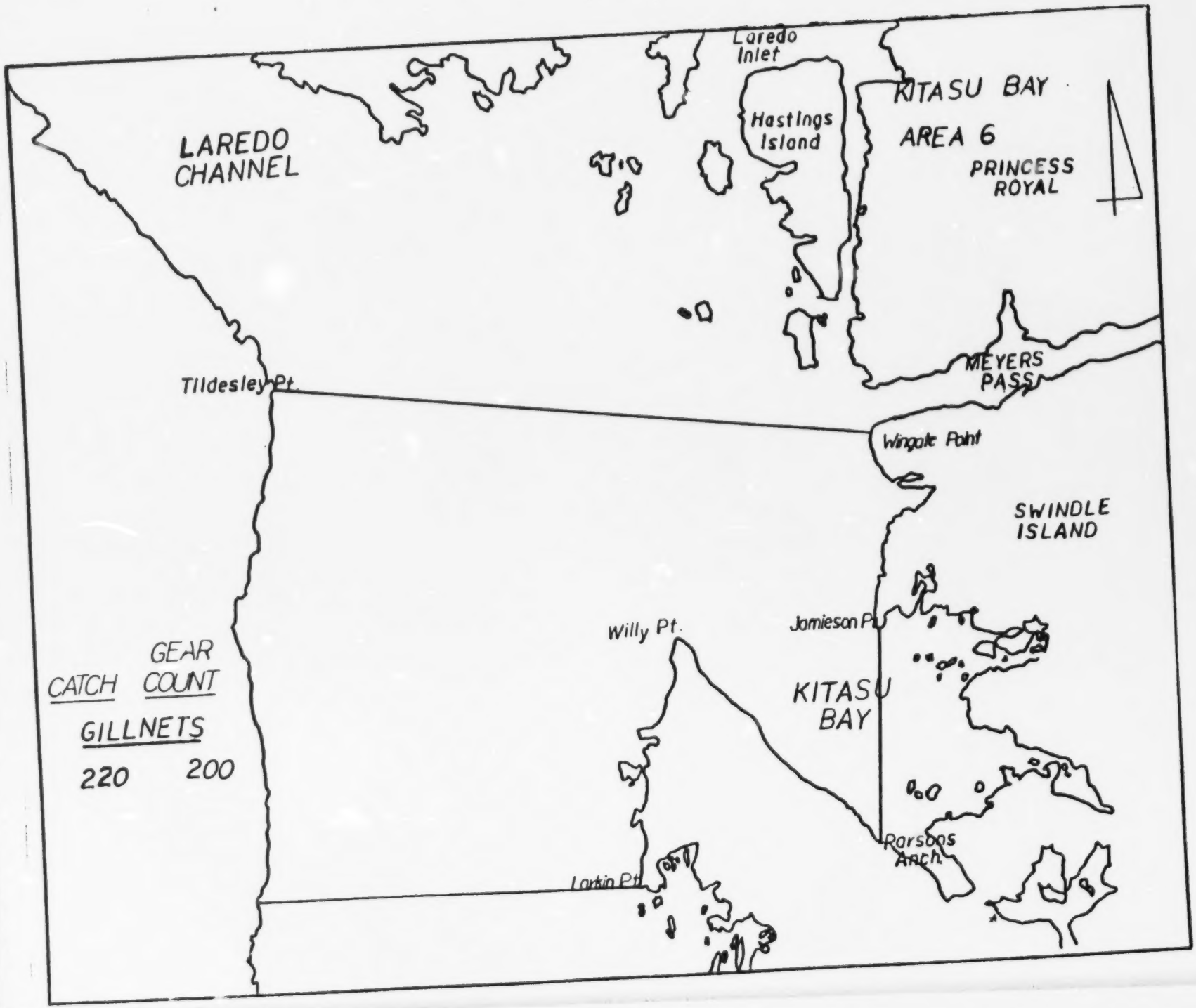

Laredo Inlet
KITASU BAY
AREA 6
PRINCESS ROYAL
Hastings Island
LAREDO CHANNEL
MEYERS PASS
Tildesley Pt.
Wingate Point
SWINDLE ISLAND
Willy Pt.
Jamieson Pt.
KITASU BAY
Parsons Arch.
Larkin Pt.
CATCH
GEAR COUNT
GILLNETS
220
200

Fig. 3. 1981 roe herring fishing locations; gear counts; and hailed catches (short tons).

H. Powell Anchorage, Area 7

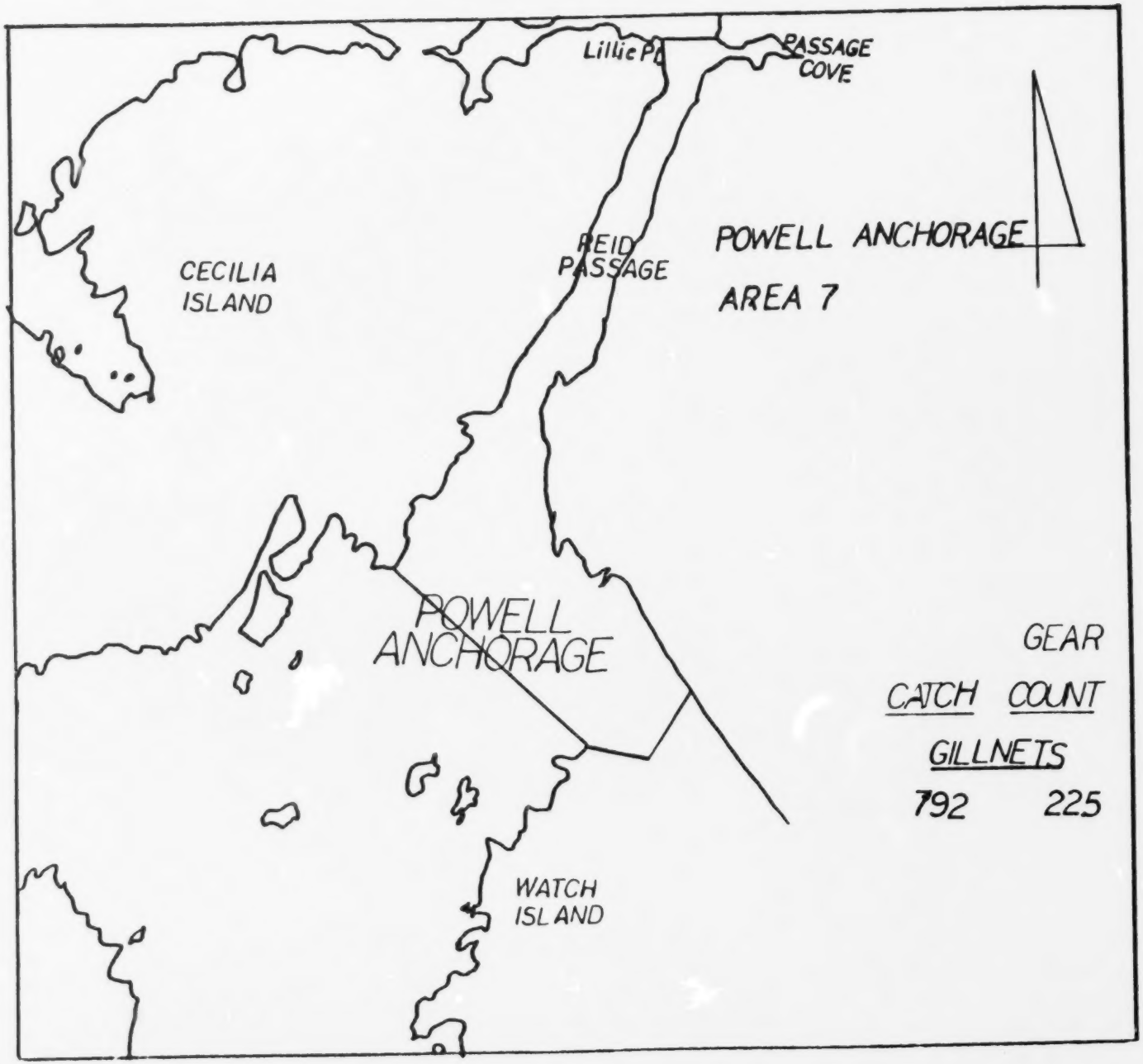

Lillie Pt.
PASSAGE COVE
REID PASSAGE
POWELL ANCHORAGE
AREA 7
CECILIA ISLAND
POWELL ANCHORAGE
WATCH ISLAND
GEAR
CATCH COUNT
GILLNETS
792 225

Fig. 3. 1981 roe herring fishing locations; gear counts; and hailed catches (short tons).

I. Cape Mark, Area 7

CATCH	GEAR COUNT
GILLNETS	
307	115

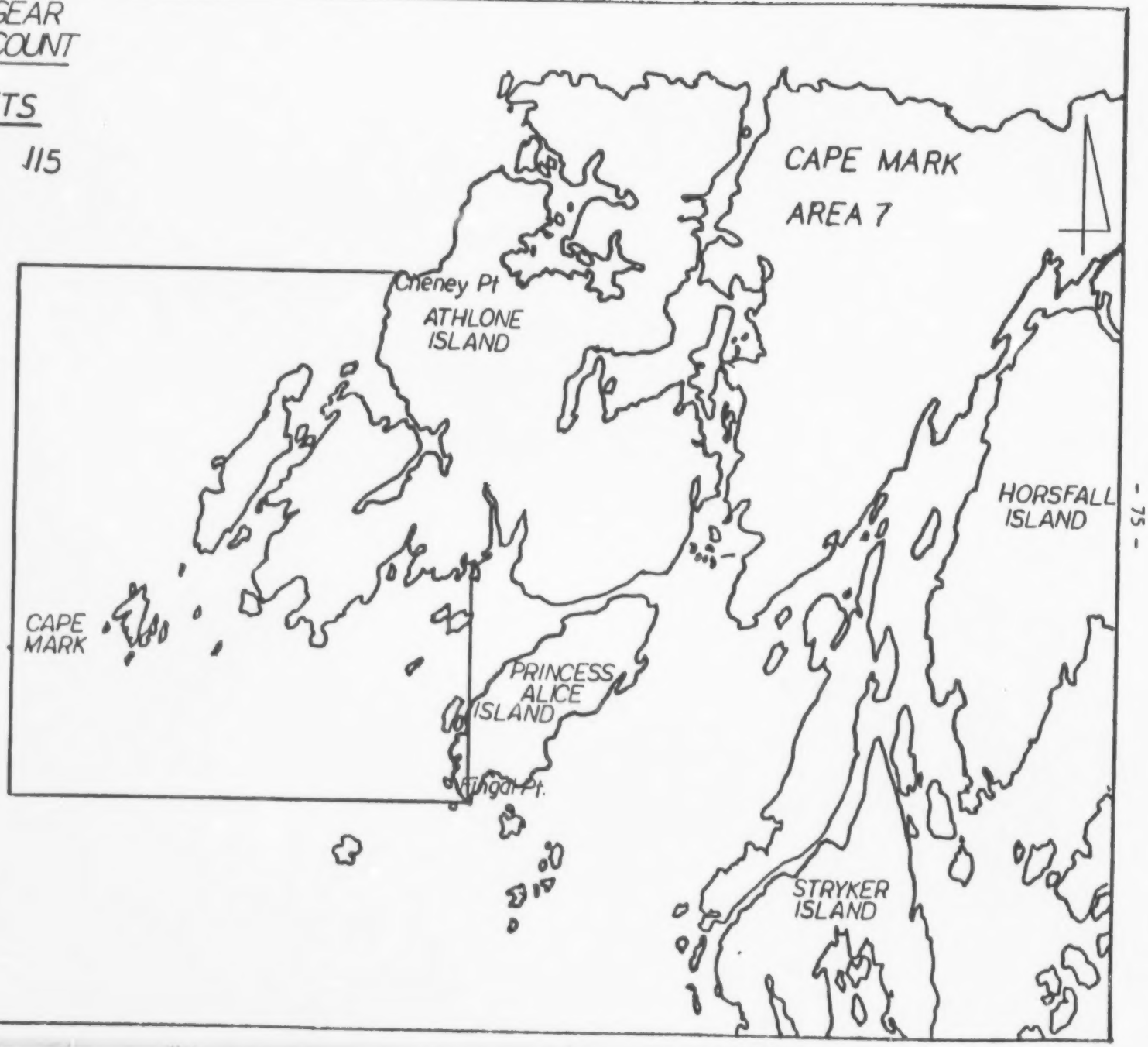


Fig. 3. 1981 roe herring fishing locations; gear counts; and hailed catches (short tons).

J. Lambert Channel, Area 14

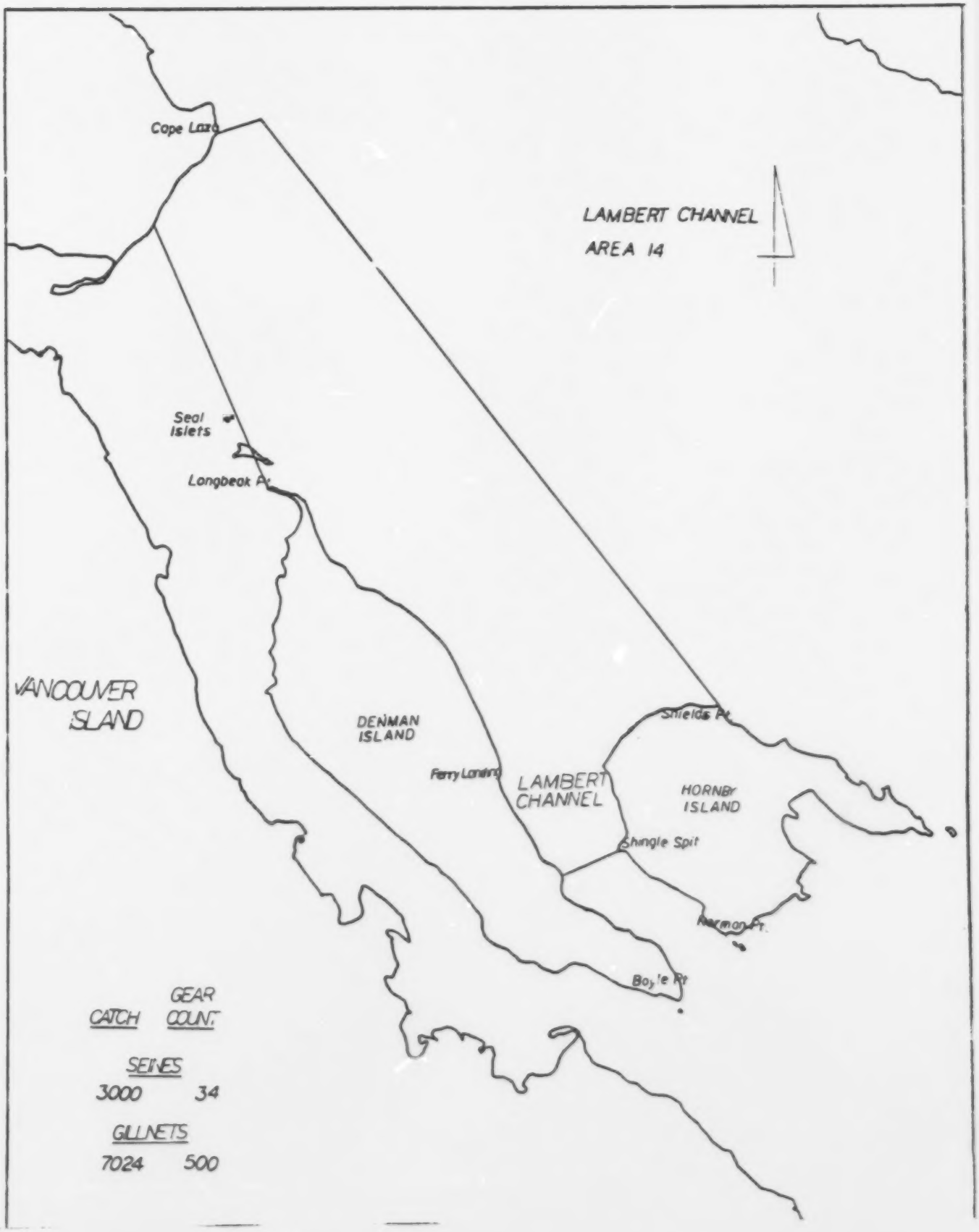

Cape Lazo
LAMBERT CHANNEL
AREA 14
Seal Islets
Longbeak Pt.
VANCOUVER ISLAND
DENMAN ISLAND
Ferry Landing
LAMBERT CHANNEL
Shields Pt.
HORNBY ISLAND
Shingle Spit
Harmon Pt.
Boyle Pt.
GEAR
CATCH COUNT
SEINES
3000 34
GILLNETS
7024 500

Fig. 3. 1981 roe herring fishing locations; gear counts; and hailed catches (short tons).

K. Barkley Sound, Area 23

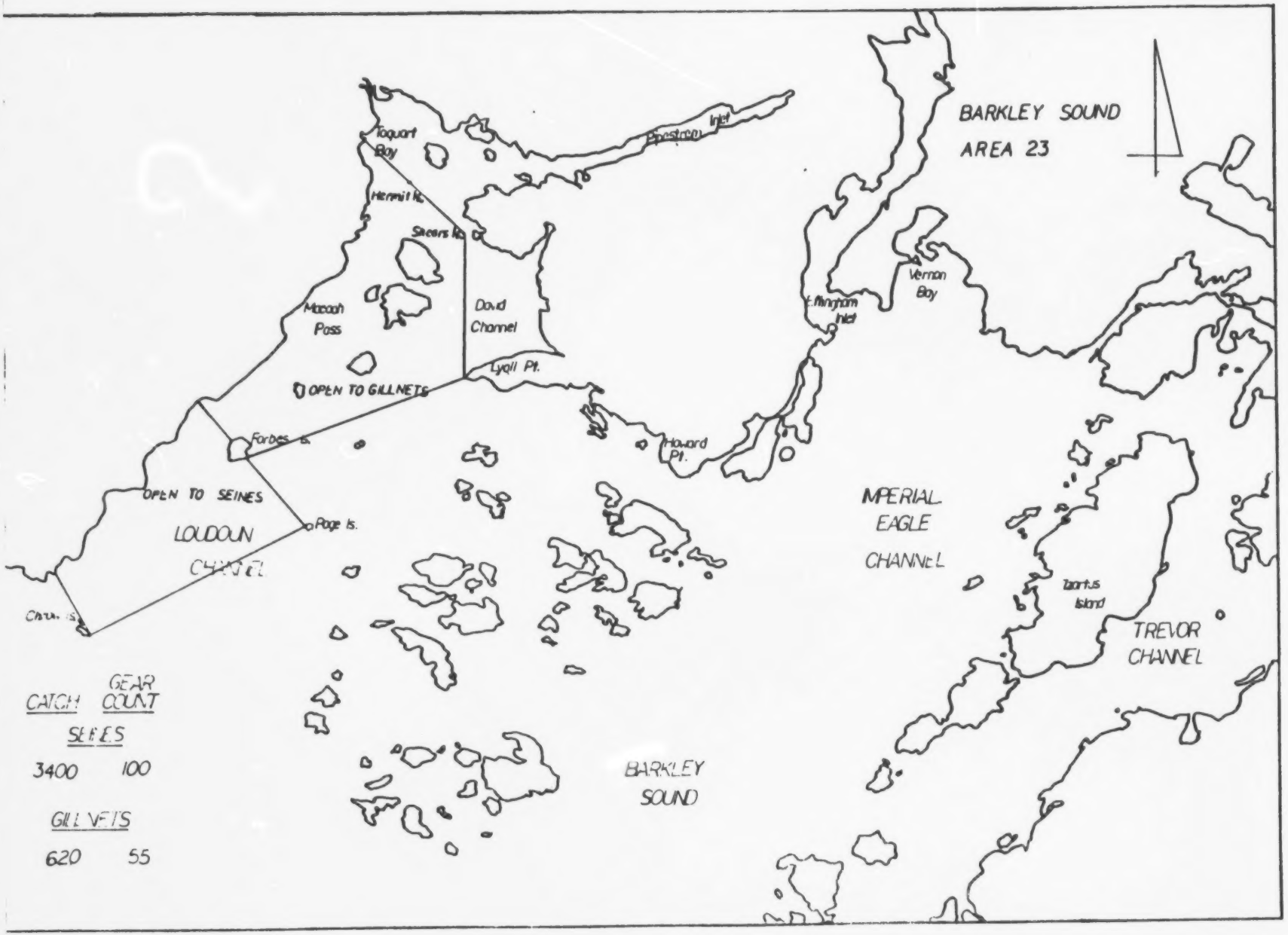

BARKLEY SOUND
AREA 23
Toquart Bay
Hermit Is.
Stears Is.
Macaw Pass
Dodd Channel
Lyall Pt.
OPEN TO GILLNETS
Forbes Is.
OPEN TO SEINES
LOUDOUN CHANNEL
Page Is.
Howard Pt.
IMPERIAL EAGLE CHANNEL
Vernon Bay
Tzartus Island
TREVOR CHANNEL
BARKLEY SOUND
CATCH
GEAR COUNT
SEINES
3400 100
GILLNETS
620 55

Fig. 3. 1981 roe herring fishing locations; gear counts; and hailed catches (short tons).

L. Clayoquot Sound, Area 24

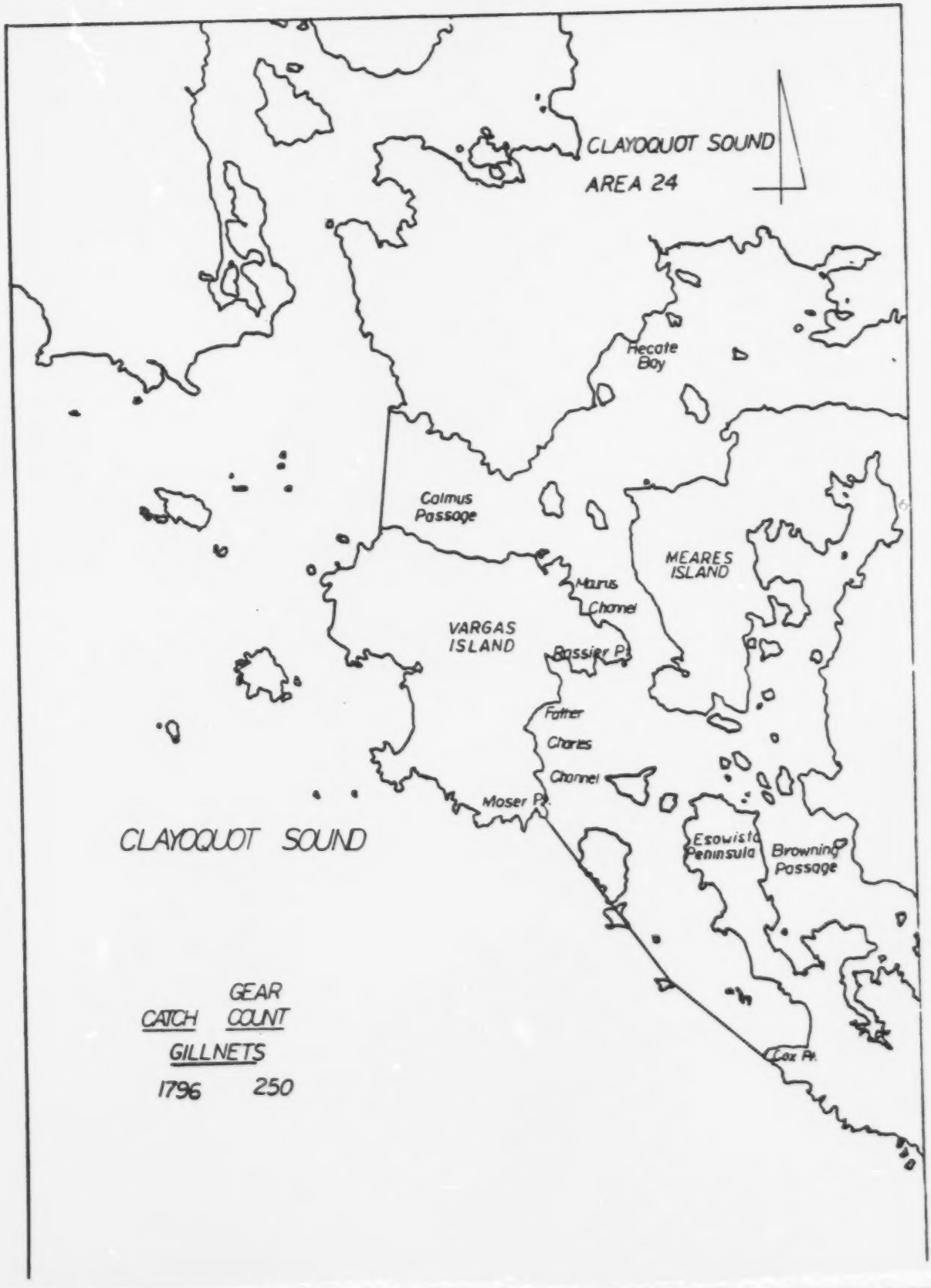

CLAYOQUOT SOUND
AREA 24
Hecate Bay
Colmus Passage
MEARES ISLAND
Morris Channel
VARGAS ISLAND
Bassier Pt.
Father Charles Channel
Moser Pt.
CLAYOQUOT SOUND
Esowista Peninsula
Browning Passage
Cox Pt.
GEAR
CATCH COUNT
GILLNETS
1796 250

Fig. 3. 1981 roe herring fishing locations; gear counts; and hailed catches (short tons).

M. Esperanza Inlet, Area 25

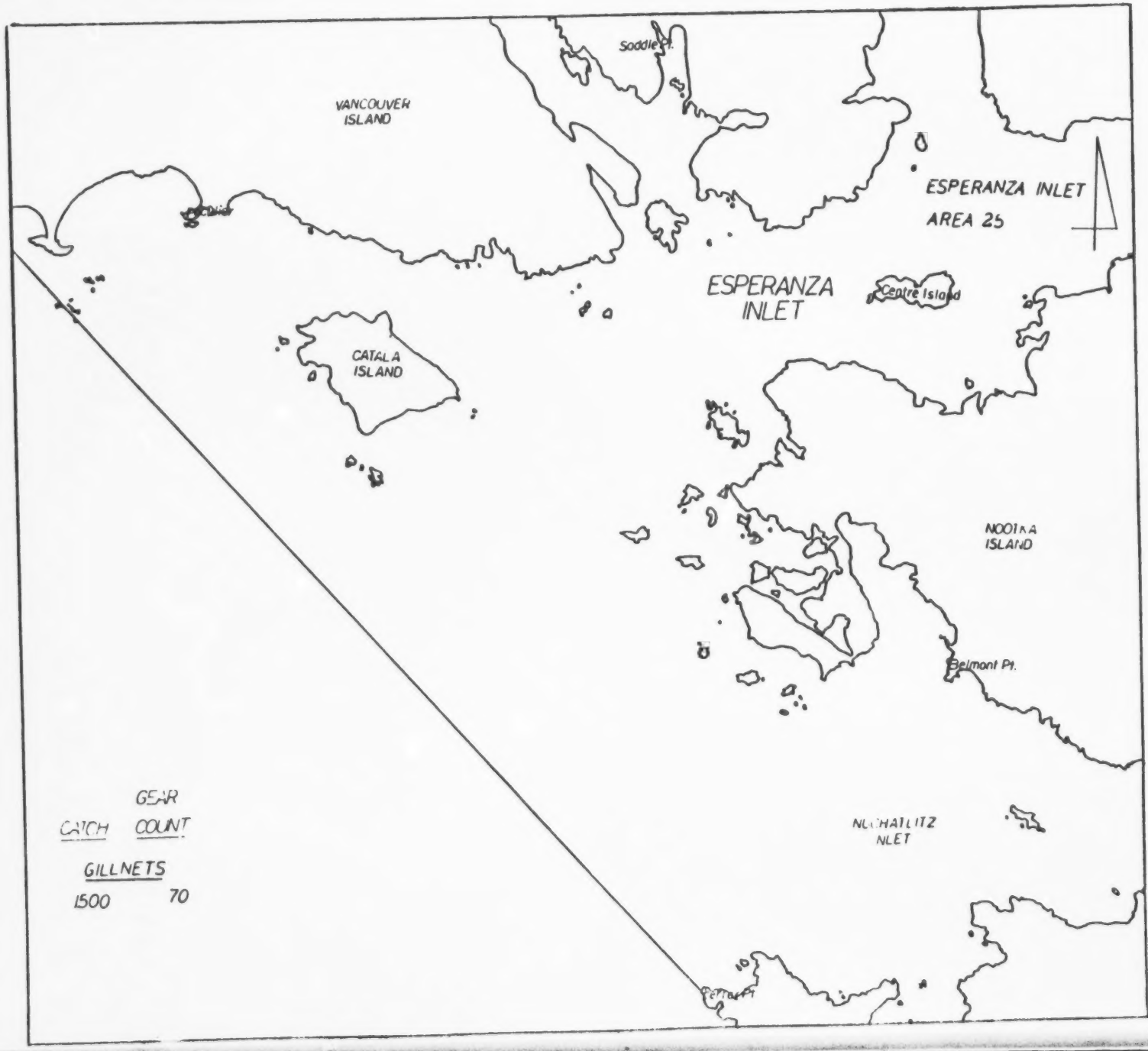

Saddle Pt.
VANCOUVER ISLAND
ESPERANZA INLET
AREA 25
ESPERANZA INLET
Centre Island
CATALA ISLAND
NOOTKA ISLAND
Belmont Pt.
NUCHATLITZ INLET
GEAR
CATCH COUNT
GILLNETS
1500 70

Fig. 3. 1981 roe herring fishing locations; gear counts; and hailed catches (short tons).

N. Nootka Sound, Area 25

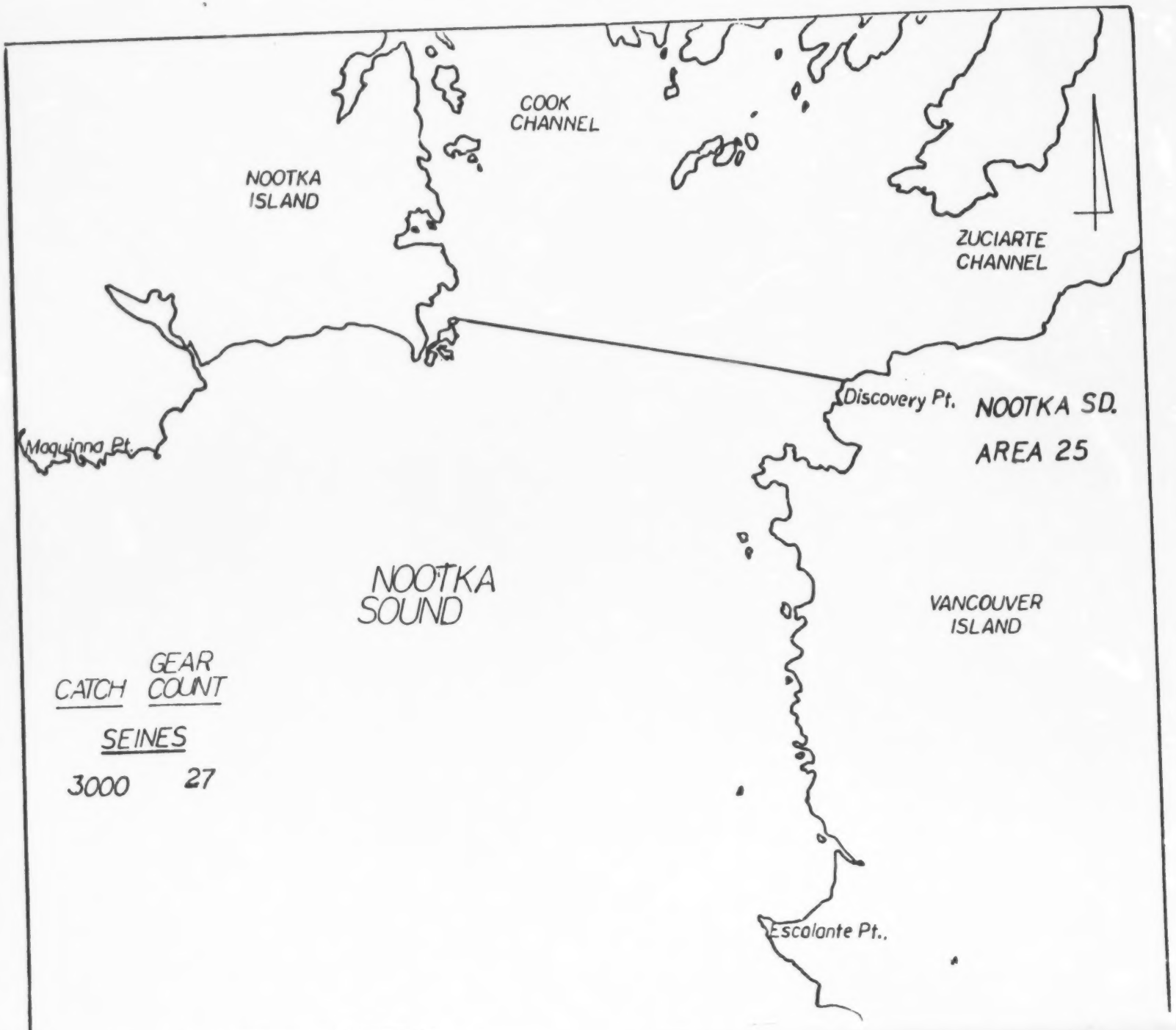
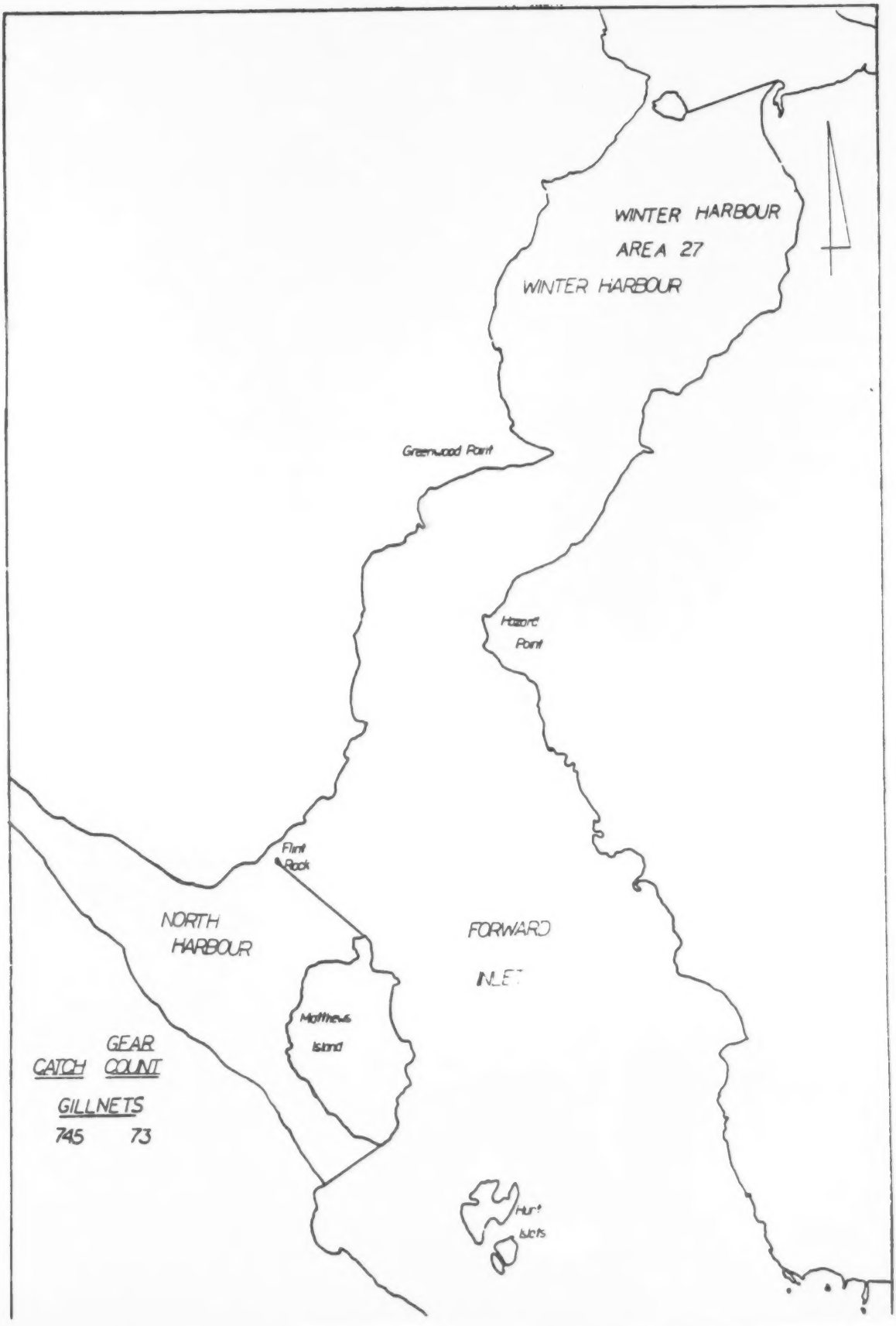

COOK
CHANNEL
NOOTKA
ISLAND
ZUCIARTE
CHANNEL
Discovery Pt.
NOOTKA SD.
AREA 25
Maquinna Pt.
NOOTKA
SOUND
VANCOUVER
ISLAND
Escalante Pt..
CATCH
GEAR
COUNT
SEINES
3000
27

Fig. 3. 1981 roe herring fishing locations; gear counts; and hailed catches (short tons).

O. Winter Harbour, Area 27


WINTER HARBOUR
AREA 27
WINTER HARBOUR
Greenwood Point
Hazard Point
Flint Rock
NORTH HARBOUR
FORWARD INLET
Matthews Island
Hurt Islets
CATCH GEAR COUNT
GILLNETS
745 73